

Dear System Operator:

Welcome to *WILDCAT!*, "The Telecommunications Host System with Power, Speed and Flexibility". This copy is registered under your name and number as indicated on the enclosed diskettes. We appreciate your support of our product, and want to assure you that Mustang Software will return the support of the registered users of our products.

We want to take this opportunity to remind you that the enclosed registered release and its documentation are NOT Shareware, and should not be made available to others. Your cooperation in this regard will contribute to the future development of low cost, quality programs.

We would like to draw your attention to the registration form on the following page. Before you can receive technical support or access to the private *WILDCAT!* BBS for registered users, the enclosed card MUST be returned to us. Also, by returning this form you'll automatically receive information regarding updates and revisions as they become available.

Should you experience any technical problems that you are unable to resolve after consulting the manual and related files, feel free to contact our customer support department. Telephone assistance is available Monday - Friday from 9am to 4pm PST. A *WILDCAT!* support forum has also been established on CompuServe (GO PCVEN) and we are located in Sub-Topic 9.

Lastly, we have set up a PRIVATE registered user's BBS for your use. It can be reached by calling (805) 395-0250. You will not have full access on your first call since we need you to complete the user database information, including password selection, prior to upgrading your security. Please leave a COMMENT and we will increase your access level as soon as possible. Again, you must return your registration form in order to get full access.

Thanks again and welcome to *WILDCAT!*

Very Truly Yours,  
Mustang Software, Inc.

Jim Harrer  
President

98-1282

46958



**The Telecommunications Host System with  
Power, Speed and Flexibility**

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# **WILDCAT!**

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*Mustang*

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# INTRODUCTION

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*"Shareware will remain a viable marketing method as long as the users who can't live without a Shareware product realize that the Authors can't LIVE without their registration."*

Jim Harrer  
Mustang Software, Inc.

## In this Chapter...

- What is *WILDCAT!* ?  
Explore the Power, Speed and Flexibility.  
A brief history.
- Security  
Why *WILDCAT!* is admittedly security heavy.

## What Is WILDCAT! ?

At first glance, *WILDCAT!* may look like just another bulletin board program. This was by design. Much effort was spent incorporating popular features of other BBS systems, including many of the command options. That is where any similarity ends, however. Powerful extended features have been added to what at first appear to be familiar routines. Other features and utility functions are precedent-setting in a BBS environment.

In addition to drawing on its own creativity, Mustang Software solicited input from dozens of BBS system operators (sysops) from across the country asking what they felt would constitute the "ideal" professional bulletin board system. We then proceeded to log thousands of hours of intensive code writing in assembler and Turbo Pascal in an effort to make that ideal system a reality.

*WILDCAT!* is our vision of what a full-featured bulletin board program should be.

Features include:

- Fast B-Tree **indexed access** to all data files including Users, Files and Messages.
- **Easy set-up** via an interactive installation program which configures defaults.
- **Dynamically built menus** based on security level definitions in the configuration file.
- **Ten Color menu levels**, each with individual security access.
- **Flexible security** for users and files, 50 levels available.
- Date of birth and phone available as security check items.
- **Include/exclude 300 baud** calls during definable time periods based on sysop preference and system needs.
- Supports up to **19,200/38,400 baud modems**, including data transfer over normal phone lines.
- More than 100 **customizable display files**, including placement of any available system information in user defined displays.

## Introduction

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- Message features include **reply, forward, carbon copy, return receipt and print.**
- **26 message Folders** available, including comments to the sysop within messages.
- **Wastebasket message Folder** which holds deleted mail until “killed” by sysop.
- Ability to **move messages** from folder to folder.
- **ANSI graphics** support in menus, file descriptions, messages and system prompts.
- **Multiple line file descriptions**, including download time based on the callers baud rate
- **Single line file descriptions** as an option, with file size and description only..
- Automatic caller **notification of bulletin updates** based on bulletin file date and time.
- **Multiple questionnaire** files available, including one for new users, and others selected by menu choice.
- The MAKEQUES.EXE **full-screen questionnaire editing** program to create branching questionnaires with free-form or formatted output.
- Questionnaire pre-formatted to accept dates, **SS #, Visa/MC, AMEX**, text strings, multiple choice and Yes/No with branching.
- **Remote event timer** support for scheduled activities outside of the *WILDCAT!* system.
- **Configurable screen pauses** based on each callers screen length.
- System and Menu **help files** available, both in normal and ANSI color mode.
- **Stackable menu commands** available in many areas for advanced users.
- Most sysop functions available from **remote sysop log-on**, including system update and maintenance.



- Additional upload and download support, including **multiple file transfer** using internal and external protocols (KERMIT, YMODEM-G, YMODEM Batch, ZMODEM, etc)
- **Doors**, which allow running on-line programs, games, etc.
- **Hot Key** entry of single-character caller selections.
- Default User Up/Download protocol.
- Pre-Log display file prior to any other information being sent.
- Enhanced **Drop to DOS** capabilities and return.
- **Closed system option** configurable with special questionnaire, forced comment or immediate log off.
- **Birthday message** display file sent on users birthday!
- Ability to **View a compressed file** contents from the Files menu.
- Easy **reading of any ASCII text file** from the Files menu.
- **Support for up to 2 billion users, files and messages, limited only by disk space.**

## **WHAT ABOUT SECURITY?**

After reviewing the first few pages of the installation procedure, you will undoubtedly begin to think that *WILDCAT!* is preoccupied with security. If so, you're absolutely right. Although *WILDCAT!* is perfectly capable of serving the needs of the hobbyist telecommunications enthusiasts, it was designed with a business environment in mind, an environment in which the integrity of information is of paramount importance. *WILDCAT!*'s security is second to none. Since it's first release in 1986 the security provisions have never been overcome as the result of a software deficiency or compromise of the program code. The file database structure allows sensitive non-BBS data to reside on the same hard disk as the *WILDCAT!* system, since ONLY the specifically authorized database files are ever allowed access. The system operator has full control of the security setup from the number of login checks performed to file and message access to the time remaining prior to logoff. The choice is yours.

*WILDCAT!* is admittedly security "heavy".



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# PROGRAM SUPPORT AND WARRANTY

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*"The writer does the most who gives the reader the most knowledge  
and takes from him the least time."*

(unknown)

## In this Chapter...

- **System Requirements**  
What you need to get started and equipment check list.
- **Registered User Releases**  
What is included with your registration.
- **Technical Support**  
We're only a phone call away.
- **The source code**  
Why it isn't distributed.

## SYSTEM REQUIREMENTS

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*WILDCAT!* was written on the premise of being used in business applications. No attempt has been made to make the product compatible with single or dual floppy drives and computers with limited memory capacity. It is necessary that your memory and storage areas are capable of accommodating the many files and work areas that are required by the code during normal run-time. Mustang Software has no plans of changing the program to accommodate systems with minimal capacity. The following list represents the minimum configuration your system should have to be capable of properly maximizing the potential of the program.

- *IBM Personal Computer (or true compatible)*
- *PC-DOS or MS-DOS, Ver. 3.0 or later*  
*(other operating environments such as DESQview may be used, see appendix E for details.)*
- *Asynchronous communications (serial port) adapter*
- *RS-232 cable with the standard 9 pins connected (some modem cables do not have all the pins hooked-up).*
- *Intelligent AT command set modem*
- *80 column monochrome or color monitor*
- *Voice-grade telephone connection for modem*
- *384K (minimum) RAM, 300K for Wildcat!*
- *Hard disk drive*



## Program support and Warranty

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*WILDCAT!* is founded in Mustang Software's belief in the Shareware marketing concept - that of encouraging low cost, high quality software. The program is being distributed in two ways, a Shareware release and an enhanced version for Registered Users. The Shareware release is a fully-functional bulletin board system; it will allow new users to try *WILDCAT!* and determine if it meets their needs. The Shareware release is not the latest release of the program, however, and does not include all the features of the Registered User Version. All Shareware releases contain complete information on registration and complete documentation.

*Do NOT  
distribute your  
Registered User  
version*

### Included with your full Registration

- *A copy of the latest version of the program;*
- *A more comprehensive, updated, bound & printed operations manual;*
- *90 days free technical support by phone between 9 a.m. and 4 p.m. pacific time;*
- *Automatic notification of any major program updates;*
- *A card redeemable at any time for \$50 toward any Mustang Software product or service. This includes, but is not limited to, future updates, enhanced versions of *WILDCAT!*, supplemental programs such as the *PRO!* Series, extended support, or other Mustang Software products.*
- *Additional program updates at a significantly reduced rate.*
- *Access to proprietary utility programs, written by both Mustang and other authors, which enhance and add features.*
- *24-hour access to the private multi-line Registered Users BBS at Mustang Software.*

### Technical Support

Satisfied customers are our greatest asset. Please fill out and mail your registration card as soon as you purchase *WILDCAT!*, and we'll enroll you in our free 90 day telephone technical support program.

*WILDCAT!* was designed for ease of use, and this manual should contain the answers to most of your questions. Read it first, make use of the F1 help key in MAKEWILD, and check the appendices for troubleshooting procedures. If you're still stumped, technical support is only a phone call away. You may first want to call our own *WILDCAT!* system reserved for Registered Users at 805-395-0250 for valuable insight by other sysops. You will NOT have full access on your first call since we need you to fill out the user database info such as your password, etc. Leave a COMMENT and we will upgrade your status as soon as possible, usually within 24 hours. This method of obtaining support is especially good if you want expert guidance regarding the more advanced features. Another alternative is CompuServe where we are a part of the PC Vendor Support Forum. You reach us by typing **GO PCVEN** and then selecting Sub Topic 9. Our PIN is (75236,3312). If you are unable to find the answer to a question or just need a quick explanation, please give us a call between 9am and 4pm PST. **You can reach technical support direct at (805) 334-2240.** When calling for support please be at your PC with the line clear and your manual handy. System access and testing is often needed to resolve problems.

*There are  
several ways to  
get HELP  
when you  
need it.*

After the initial 90 days, technical support continues to be available through the registered user BBS system and CompuServe, provided we have received your registration card.

Extended voice technical support may be obtained for \$50 per year through our Extended Support & Auto-Update Plan. This program also includes automatic mailing (without request or payment) of any minor updates during the year in addition to the extension of voice support. The Extended Support & Auto-Update Plan may be purchased using your \$50 credit voucher, if you desire.



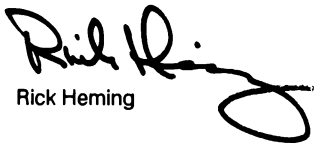
## The Source Code

The source code for *WILDCAT!* is not available. This decision gives us the ability to guarantee the integrity of our product in this era of software contamination. It is not available either under the Shareware concept, or as an end-user product. To those who may have security concerns about running a BBS program without being able to see or alter the code we can only offer this assurance:

*"Mustang Software has every intention of continuing to strengthen our position as a supplier of quality computer software. To do so, we must rely heavily on our reputation in the national BBS community. We would not compromise that reputation for anything! You can trust that WILDCAT!'s source code has no undocumented features which could compromise the security aspects of our product."*



Jim Harrer



Rick Heming



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# INSTALLATION

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*"If your work product speaks for itself...don't interrupt."*

Rick Heming  
Mustang Software, Inc.

## In this Chapter...

- *WILDCAT!* Databases  
Explore *WILDCAT!* Three databases for file handling, messages and users.
- Quick Start  
For veteran sysops who want to jump right into *WILDCAT!*
- Creating a *WILDCAT!* environment  
Subdirectories and CONFIG.SYS files for your system.
- MAKEWILD  
*WILDCAT!*'s interactive installation program.  
Step by step instruction.

# Installation

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*WILDCAT!* installation has been simplified through an interactive installation program. It is used for both a completely new *WILDCAT!* installation as well as upgrading from any prior release. Please read through the following instructions regardless of which type of installation you are performing.

## New user installation

Follow the instructions for the INSTALL program, beginning on the following page. Install ALL files. Skip to the INSTALL PROGRAM section now.

## Upgrading from any prior version

If you are upgrading from any earlier version of *WILDCAT!*, follow the instructions for the INSTALL program on the following page, keeping in mind this additional information. There is an option within the INSTALL program that asks if you are upgrading from a prior version. Be certain to answer this question **Y**. Doing so will result in an automatic upgrade and conversion of your data files. You will be prompted for the old version number during installation.

*Users upgrading from a prior registered version may not sell or otherwise transfer rights or ownership of a previous registered program.*

If you have invested considerable time in creating custom menus or display files you will want to pay specific attention to the SELECT section, where you indicate which files you want to install and which you do not want to update. You will also notice that you can ask for a confirmation prior to over-writing files during installation.

*See the License Agreement, or call Mustang Software if you have any questions in this regard.*

If you are upgrading from an old version of *WILDCAT!* that used WILDCAT.COM and MAKEWILD.COM rather than the newer .EXE files, you MUST delete the two files with the extension .COM. Keeping these thoughts in mind, skip to the INSTALL PROGRAM section now.

### Changing from single to multi-line

If you are upgrading your system from a single-line 2.x release to multi-line 2.x (from 2.xS to 2.xN or P) you first need to prepare your system for the new files in the following manner:

- 1 - Delete your **NODEINFO.DAT** file since the multi-line version creates a different version, and will do so only if none exists.
- 2 - Run **WCREPAIR** (the old version) and edit the **MASTER.DAT** file to determine the total number of calls to the system. Make note of the number to later update the new system. Exit **WCREPAIR** and delete the **MASTER.DAT** file.
- 3 - Install the new program files by following the instructions for the **INSTALL PROGRAM** below. Make note of the cautions contained in the previous section entitled "Upgrading from any prior version" when running **INSTALL**.
- 4 - After installing the new program files you must start **WILDCAT!** just as you did with your original single-line version to create the new **NODEINFO.DAT** and **MASTER.DAT** files.
- 5 - After these files are created you can re-enter your number of callers by running **WCREPAIR** and again editing the **MASTER.DAT** file. After successfully running a single-line system you may add additional lines as indicated in the multi-line section of the manual.

### The INSTALL Program

Begin the **INSTALL** program by placing the diskette labeled **INSTALL DISK** in drive A: (or any other drive). Make drive A: (or whatever drive you are using) the current drive and type **INSTALL** to begin the installation program.

When the program starts you will see complete installation instructions on screen prior to actually entering the program.

You can return to the instructions at any time during INSTALL by pressing the F1 HELP key.

Once you leave the instructions and enter the actual program the following screen is displayed:

```

WILDCAT!  Installation Program v1.00  F1 = Help
Archive directory      : A:              Disk free   : 7,057,408
WILDCAT! destination  : C:\WILDCAT       Disk required: 1,372,753
Display destination    : C:\WILDCAT\DISPLAY
Help destination       : C:\WILDCAT\HELP
Bulletin destination   : C:\WILDCAT\BULL
Menu destination       : C:\WILDCAT\MENUS
Door destination       : C:\WILDCAT\DOOR
Datafile destination   : C:\WILDCAT\DATAFILE
Master destination     : C:\WILDCAT\MASTER
Questionnaire dest.    : C:\WILDCAT\QUESTION
Protocol destination   : C:\WILDCAT\EP

      Select      Others      Go      Quit

Upgrade WILDCAT! : N      Overwrite files : Y
Config WILDCAT!  : N      Confirm overwrite: Y
Create .BAT files: Y      Modify System   : Y

      Drive and directory where the LZH files are stored

```

The screen above is the heart of the install program. Unless you are upgrading from a prior release we suggest making use of the default directory path names. The "Archive directory" is the location of the diskette drive containing the distribution programs, and is usually drive A:. Complete the other path names as desired. If any specified directory path is not found, you will be notified and it will be created by the INSTALL program. If you are upgrading from a prior release, set the **Datafile destination** to the current location of your database files, usually C:\WILDCAT. This will allow proper location and conversion. The other screen items operate as follows:

**SELECT** The select option is used to allow you to indicate exactly which files you want to install. INSTALL defaults to ALL, as this is the normal choice for first time installations.

## Installation

When SELECT is activated a divided window pops-up follows:

```
WILDCAT! Installation Program v1.00 F1 = Help
Archive directory : A: Disk free : 7,057,408
WILDCAT! destination : C:\WILDCAT Disk required: 1,372,753
Display destination : C:\WILDCAT\DISPLAY
Help destination : C:\WILDCAT\HELP
Bulletin destination : C:\WILDCAT\BULL
Menu destination : C:\WILDCAT\MENUS
Door destination : C:\WILDCAT\DOOR
Datafile destination : C:\WILDCAT\DATAFILE
Master destination : C:\WILDCAT\MASTER
Questionnaire dest. : C:\WILDCAT\QUESTION
Protocol destination : C:\WILDCAT\EP

WILDCAT! - Pick F1 = Help
ALL JADDFILES.EXE JMAKEWILD.HLP JEVCMZ4MP.MDM JMTZ24MNP.MDM
Normal Screen JCONVERT.EXE JREAD.ME JEVERCMZ4.MDM JMTZ4MNP.MDM
Color Screen JDOORTEST.EXE JWILDCAT.EXE JHAYES12.MDM JMTZ4MNP.MDM
Normal Menus JHANDLES.EXE JWILDCAT.OUR JHAYES24.MDM JMTMDMU32.MDM
Color Menus JMAKEQUES.EXE JASTZX96.MDM JHAYES96.MDM JOMNITEL.MDM
Bulletons JUPGRADE.EXE JATIZ400.MDM JHST-UNLK.MDM JPBELL24.MDM
Help Files JVIEWCHAT.EXE JATIZ4MNP.MDM JHST19200.MDM JSA.MDM
MDM Files JWAIT!.EXE JCARDZ4EX.MDM JHST38400.MDM JSTD_1.MDM
Misc JWAITFOR!.EXE JCOURZ400.MDM JMT-DOORS.MDM JSTD_2.MDM
Utilities JUCREPAIR.EXE JCP1-96.MDM JMTZ24.MDM JSTD_3.MDM
Program JMAKEWILD.EXE JEV-941.MDM JMTZ24E.MDM JSUPRAZ4.MDM
↓ for more
```

The left column contains filename groups, starting with ALL. Notice that a check mark appears next to every file when ALL is selected. New installations can simply leave the setting on ALL and press ESC to go back to the next main screen choice which is OTHERS. If you will be limiting the files to be installed, the specific files in each group are broken down as follows:

COLOR SCREENS selects all Color Display files, excluding Menus, Help files, and Bulletins.

NORMAL SCREENS selects for installation all Non-Color Display files, excluding Menus, Help files, and Bulletins.

COLOR MENUS selects for installation all Color Menus.

NORMAL MENUS selects for installation all Non-Color Menus.

HELP FILES selects for installation all Color as well as Non-Color Help files.



BULLETINS selects for installation all Bulletin Files, including sample Bulletins and Menu.

MDM FILES selects for installation the .MDM files used for modem installation by the configuration program MAKEWILD.

MISC selects for installation several miscellaneous required files.

UTILITIES selects for installation all utility programs such as the MAKEWILD setup program and the the database repair program WCREPAIR.

PROGRAM selects for installation the *WILDCAT!* executable files.

When you have marked the files to install (with a check), press ESC to save your selections and return to the menu.

After selecting the files to install, select the screen choice OTHERS. This menu option is used to install other programs which may be distributed with your *WILDCAT!* package. The most common is the PRO! Series utilities. Another pop-up window will contain the choices available:

```

WILDCAT! Installation Program v1.00 F1 = Help
Archive directory      : A: Disk free : 7,057,400
WILDCAT! destination  : C:\WILDCAT Disk required: 1,372,753
Display destination   : C:\WILDCAT\DISPLAY
Help destination      : C:\WILDCAT\HELP
Bulletin destination  : C:\WILDCAT\BULL
Menu destination      : C:\WILDCAT\MENUS
Door destination      : C:\WILDCAT\DOOR
Datafile destination  : C:\WILDCAT\DATAFILE
Master destination    : C:\WILDCAT\MASTER
Questionnaire dest.   : C:\WILDCAT\QUESTION
Protocol destination  : C:\WILDCAT\EP

Select Others Utilities Quit
Upgrade WILDCAT! : N PROPak 1of2
Config WILDCAT! : N PROPak 2of2
Create .BAT files: Y S-PRO!
                               U-PRO!
                               Q-PRO!
                               F-PRO!
                               M-PRO!
                               CATEYE
                               BIMODEM
                               F1 = Help
                               write files : Y
                               irm overwrite: Y
                               fy System : Y
                               Install
Select other Softw

```

Select the Names corresponding to the disks supplied to you. For example, if you also purchased the PRO! Series you should highlight and select **PROPAK 1 of 2** and **PROPAK 2 of 2**. BIMODEM, a file transfer protocol written by a third-party developer, is distributed with permission and may be selected for installation in this area.

When you have marked the additional programs to install press ESC to save your selections and return to the menu.

**GO** - This menu option is used to begin the de-archive process of the files you have selected for installation. Files are de-archieved into their respective directories, and all other options are carried out as defined.

**QUIT** - This option immediately returns the user to the DOS prompt.

The options at the bottom of the screen are toggled from **Y** to **N** by pressing [ENTER] when the option is highlighted.

**UPGRADE WILDCAT!** - Select **Y** if you are upgrading from a *WILDCAT!* version prior to 2.0 . After selecting **GO**, your current Databases will be upgraded to the new format and you current MAKEWILD configuration will be converted.

**CONFIGURE WILDCAT!** - Select **Y** to enter the MAKEWILD configuration program after all selected files have been installed. Since MAKEWILD must be invoked after installation and prior to running *WILDCAT!*, this option should be set to **Y** for most installations. Note that MAKEWILD must be run even if upgrading from a prior version.

**CREATE .BAT FILES** - Select **Y** if you wish to have the Install program create your batch files for starting *WILDCAT!*, as well as sample ZUPBAT and ZDOWN.BAT for use with ZMODEM as an external protocol.

**OVERWRITE FILES** - Select Y if you have existing *WILDCAT!* files you wish to overwrite. If you are upgrading from a prior release you will want to overwrite many files, such as the actual *WILDCAT!* program, but may want to refrain from overwriting others, such as your custom display files. You can specify Y to overwrite files, and make use of the overwrite confirmation (next question) to select precisely which to overwrite and which to keep.

**CONFIRM OVERWRITE** - Select Y option if you wish to be prompted before any pre-existing files are overwritten during the de-archiving process.

**CONFIGURE SYSTEM** - Select Y if, upon completion of the installation process, you wish to have the **INSTALL** program change your **CONFIG.SYS** and your **AUTOEXEC.BAT** files if any changes need to be done.

After completing the questions, select **GO** and *WILDCAT!* will be installed on your hard disk.

**Note:** Be sure to read the contents of the **READ.ME** file that may be contained on the "program" distribution diskette. The **INSTALL** program will ask you if you want to read it, and you should be sure to do so. It will contain important update information to this documentation if it exists. Documentation updates included in the **READ.ME** file are important!

When the **INSTALL** program is complete, it may automatically begin the configuration program **MAKEWILD**, if you have instructed it to do so. Prior to completing the questions in **MAKEWILD** you may find it useful to read the following short section on *WILDCAT!* background and the database and folder concepts.

*For  
experienced  
Sysops*

## **Quick Start**

After completing the **INSTALL** program you are ready to configure *WILDCAT!*. Although we strongly suggest that all operators become familiar with *WILDCAT!* by reading the

entire manual prior to starting the program, we realize that many users will feel comfortable with other methods of learning the program features. For those already familiar with the disk operating system, paths, file handling and/or have run other bulletin board systems in the past, you may do the following:

- *Install the appropriate program diskettes using the **INSTALL** program, following the instructions.*
- *Create or modify your **CONFIG.SYS** file (if you do not do so from within the **INSTALL** program) according to "Other Requirements" below.*
- *Run **MAKEWILD** (if you don't run it automatically from **INSTALL**) to configure **WILDCAT!** to your preferences, using the **F1** key for detailed help at each question.*
- *Set your modem switches correctly (see Appendix A).*
- *Run **WILDCAT!***
- *Use the **HOME** key for function key assistance.*
- *Use the **F1** function key to logon and enter your **SYSOP** information (remember, you are a new user the first time).*
- *At the **WILDCAT!** Main Menu, use function key **F9** to upgrade your status to that of system operator.*
- *Refer back to this documentation as a reference guide for more detail, for tips on special configurations, and for explanations of the various display files.*

This quick start procedure is **ONLY** suggested for those who feel comfortable learning on their own. A step-by-step startup process will be outlined in the chapters which follow.

## Other Requirements

If you did **NOT** make automatic modifications to your **CONFIG.SYS**, check it now! It **MUST** contain the statements

**files = 40** (place as the FIRST line in your CONFIG.SYS file)  
**buffers = 40**

Add the above lines to the CONFIG.SYS file, located in the root directory of your hard drive (or the drive that boots up your system).

**WILDCAT! contains special code to allow DOS to open more than the normal maximum of 20 files at one time. The statement FILES=40 is VERY important.**

*WILDCAT!* contains a built-in color driver, so installing ANSI.SYS is not required to run in color mode. Other programs will require your ANSI driver, however, and no compatibility problems exist between the two. If your present CONFIG.SYS installs the ANSI driver you may leave it in place.

*These changes are an ABSOLUTE MUST!!!*

*You must re-boot your system for the new settings to take effect*

## **Background**

Now for some short background information before we begin the detailed review of the MAKEWILD program.

WILDCAT! combines flexibility and security, but when these two factors are mixed in a thoughtless manner, the security loses. It is possible to intentionally or mistakenly reduce *WILDCAT!*'s built-in security to that available on the cork bulletin board at the neighborhood grocery store! This is mentioned as a first caution to check your installation security settings vary carefully prior to taking your first call.

During the installation process reviewed in this manual you will be provided with representations of the actual configuration screens to serve as guides in setting up your own custom BBS application. To guard against mistakes you are strongly encouraged to study the default information provided, and if you change any option, the first thing to do is to test the results of that change in your application. The second thing to do is to test it again! This may seem redundant and time consuming, but experience has shown that this is the fastest route to a successful bulletin board operation.

The operation and setup of a *WILDCAT!* system requires understanding several operational concepts which may be new even to the most experienced BBS operator. A thorough reading of the following information on databases and the folder concept will ease the installation process.

### Databases within Wildcat!

*Three databases  
help  
WILDCAT!  
handle internal  
chores*

*WILDCAT!* uses an internal database system to keep track of three major groups of system information, USERS, FILES and MESSAGES. Each of these databases is independent, and is ONLY able to be updated from within the program. Each consists of a data file (.DAT) as well as an index file (.IX) to speed up searches, and possibly a dialog file (.DIA) which is only present if the redundant safety mechanism is activated during configuration. All database files are composed of records, which can be thought of as index cards containing information about any ONE User, File or Message. When a *WILDCAT!* system is first started, all database files are empty. Database entries can be made in a number of ways which are discussed below under the appropriate database type.

The USER database is just what it sounds like; a file containing records for each and every user on the system. The first record added will most often be the system operators name, a process that is more fully described later in this manual. Other user database entries are usually made automatically as new users call the system, but names may be added manually by the sysop. As users are added the database expands, and as they are deleted, the space is made available for new users.

The FILE database may be a new concept to even experienced BBS sysops. Although many BBS programs track the lists of files available on the system as text listings, *WILDCAT!* uses the database method. File organization in this manner has many advantages, not the least of which is additional security and flexibility. No file on your computer system may be accessed through *WILDCAT!* unless it is first listed in the file database.

Each record in the file database contains a file name, size, date added to the system, file area letter (which tells where it is

located and what security is required), a 2 line description, as well as other information. Since the file database is empty on a new *WILDCAT!* system, file records must be added either manually by the *sysop* or by using our file addition utilities *CONVERT*, *ADDFILES* or the *PRO!* Series. *CONVERT* will read a standard text file listing used by a number of BBS programs or the *DIR* command, and place the information into the *WILDCAT!* file database. *ADDFILES* is an easy method of adding the filenames already on your disk and optionally entering the descriptions as they are added. *F-PRO!*, one of the *PRO!* Series utilities for *WILDCAT!* also manipulates the file database. See Appendix F for details about *CONVERT* & *ADDFILES*.

Changes made to the file database cause the appropriate changes to be made on disk, if indicated. For example, changing the file name will cause DOS to actually rename the file on disk, and deleting a database entry optionally allows deletion of the file on disk also. A change of the file area letter will cause the file to be copied to the new drive & subdirectory and then deleted from the old one.

Although the file database uses letters of the alphabet as area identifiers, these identifiers are NOT related in any way to the message folder letters in the message database.

The MESSAGE data file consists of groups of message lines, one after the other. The index file which is created and updated whenever a message is entered is used to locate the actual lines of any specific message within the database. As messages are deleted, the message data line space becomes available for other new messages. The index file keeps track of where the message lines for each new message are located, an absolute necessity since they may or may not remain in a contiguous sequence. The user need not concern himself with the actual operation of the message database except to understand that there is ONLY ONE message database. The Message Folder Concept also makes use of index file to allow access to different groups of messages (Folders) based on security level and user preferences.

## **The Message Folder Concept**

Message Folders in a *WILDCAT!* host system are simply groups of messages related in some manner, as defined by the sysop. They may be different types of messages (General, Turbo Pascal, Advertisements, etc), assigned to different type users (IBM, Commodore, Tandy, etc.), or be may based on security level (Non-member mail, Registered user mail, other sysops, beta test mail, etc.). No matter what the criteria used to differentiate between the different folders, each is assigned a message folder letter for identification. For each security level established on the system, the sysop indicates which message folders are available to users at that security level.

Once you have setup your system using MAKEWILD and have become more familiar with *WILDCAT!* 's structure, the relationship of security levels, message folders and user operations will become clear.

Now lets begin the MAKEWILD program.



## Makewild

A separate program called MAKEWILD.EXE is used to create and maintain the many options and menus available in *WILDCAT!*. To start the configuration program, make sure that you are in the *WILDCAT!* startup sub-directory that was created with the instructions on the blue sheet.

Type "**MAKEWILD**". Once the program loads, it will search the existing directory for the file CONFIGWC.BBS. If this file is not found (the first time MAKEWILD is run), it will be created to contain the default values for the various entries in MAKEWILD. At this point you should be viewing the following screen:

07-27-89	Makewild 2.00P (07/05/89)	11:26:10
<p>General Information Modem Setup Message Folder Setup File Section Setup File Path Definition Security Level Definition Security Information Newuser Defaults Menu Definition External Protocol Definition Node Information Door Setup</p>		
Copyright (c) 1989 Mustang Software, Inc.		
F1 for HELP - [F1] select screen - [Esc] to exit		

The screen on the previous page will be the first link in custom-tailoring *WILDCAT* to your particular needs.

To get to a particular area of the configuration setup, use the up and down arrow keys to move the highlight bar over the description which corresponds to the area you wish to view or edit. Then press ENTER to proceed to that screen.

### MOVING AROUND WITHIN SCREENS

For purposes of continuity, the configuration screens will be presented in their natural order of occurrence. In actual use you may jump from one installation screen to another at any time without returning to the Main Screen by using the PgUp and PgDn keys. Any changes made to a particular screen during editing are automatically stored temporarily to a screen capture buffer.

### EDITING KEYS

During data entry while in MAKEWILD, the following editing keys are available:

F1	Context sensitive help
F2	Pops up a list of your message folders, file areas, and security levels for reference. Use it in the following areas: Security Level Def. Part 1 & 2 Newuser Defaults Node Information
Spacebar and +	Toggles field choices if multiple choice
Left-Arrow	Move left one space in current field;
Right-Arrow	Move right one space in current field;
Up-Arrow	Move to previous field;
Down-Arrow	Move to next field;
[ENTER]	Move to next field;
Tab/ Shift Tab	Move forward or back one field;
Home	Positions cursor on first character of current field;
End	Positions cursor at the end of current

PgUp	field;	
PgDn	Proceed to previous screen;	
Insert	Proceed to next screen;	
	Toggles insert/overtyping mode. The cursor size indicates the status of the toggle. In insert mode the cursor is fatter and characters are pushed to the right. In over-type mode the characters under the cursor are replaced by those that are typed, and the cursor is thinner.	<i>F1 HELP contains excerpts from the manual to help you while entering your settings in MAKEWILD</i>
Backspace	Delete character to left of cursor;	
Delete	Delete character immediately under cursor.	

The Backspace and Delete keys work the same regardless of the status of the Insert key.

Don't forget to use F1 for complete context sensitive help at almost any MAKEWILD prompt, and to use F2 when you need to refresh your memory regarding the letters of file folders, message areas, or security levels after you have defined them once.



07-27-89	General Information - Part 1	11:27:06
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1. What is the sysop's first name : Mustang
2. What is the sysop's last name : Software
3. What is the name of your BBS : Mustang SW BBS Node 1
4. Sysop's paging hours are from 00:00 to 23:59
5. Date your board took its first call : August 1, 1986
6. What type of BBS system will be offered : Open
7. Number of security levels : 4
8. Number of bulletins : 6
9. Number of message folders : 5
10. Number of file areas : 5
11. Number of external file transfer protocols : 0
12. Number of external doors : 0
13. Number of questionnaires : 1
14. Video adaptor type : Auto Detect
15. Screen foreground attribute : 7

Enter the first name to be used when messages are sent to SYSOP
F1 for HELP - [↑] select question - [PgUp/PgDn] select page - [Esc] to exit

## General Information - Part 1

1. What is the sysop's first name : Mustang
2. What is the sysop's last name : Software

The system operator's (SYSOP) name which is chosen here is reflected *automatically* in a number of places during the program's execution, a few of which are indicated below:

- Leaving comments to the system operator;
- Paging the system operator;
- Entering messages to the system operator;
- Logging on to system locally as sysop.

*Change the example entries to reflect the correct information for your system*

Many first generation bulletin board programs used the term SYSOP to differentiate between the actual system operator and the board's callers. A certain level of system security was built around word SYSOP, so in many programs it was the

no-option default. Contemporary usage indicates a trend towards the system operator using his or her actual name in lieu of SYSOP. Users will quickly adapt to either usage. So will *WILDCAT!*. The choice is up to the operator.

If you elect to have the system operator known as SYSOP, you may leave the last name blank, but remember that these names when coupled with your password are your “keys” to the system for both local and remote logons.

### **3. What is the name of your BBS :            Mustang SW Node 1**

This is to identify the “official” name of your Bulletin Board System in various areas of the board. Be creative, but some thought should be given to a title that lends credence to the actual theme of the board. If a company or corporation has a title that is conducive to its operations, by all means use that name. Likewise in the event of multiple nodes or installations, suffix the name with the particular area or node ID.

For example:

**XYZ Corporation BBS [primary installation]**

**XYZ Corporation District 1 BBS [satellite]**

### **4. Sysop's paging hours are from 00:00 to 23:59**

In order to prevent unwanted work interruptions, the system operator's paging hours may be limited to only certain hours of the day. During other times, when a user requests that the system operator be paged, the user will receive a message indicating the appropriate hours that the system operator is available, and encouraged to leave a comment or message instead. These hours may be overridden at any time during program operation by use of the F4 key. During the “quiet” hours, the computer will inform callers that the Sysop is not available for page. If you don't mind the interruptions, leave the values set to 00:00 and 24:00, but remember that this puts you “on call” twenty-four hours a day! When paging is allowed, the sysop may elect to be paged via the system bell or silently with only a note on the display screen, by use of the F5 key. See the function key assignment section for details.

**5. Date your board took it's first call : August 1st, 1986**

The date of origin is to set a starting date for the board's operations. This establishes a starting date for any files that are dependent upon this information, such as a call reporting program or the system's user log. Operators who are converting to *WILDCAT!* from other BBS programs may retain their original start date.

**6. What type of BBS system will be offered : OPEN**

The possible choices here are OPEN, CLOSED, CLOSED COMMENT or CLOSED QUESTIONNAIRE. Use the spacebar to toggle through the four available alternatives. OPEN is the default. This means that all users will be allowed to sign on to the system and will be entered into the user data base as they call. The user's "freedom" on the board will then be determined by the security values established in the various menu commands for each level of user.

If this field is toggled (with the spacebar) to CLOSED, you are indicating that unless the user's name and password information is recognized by the system, that user will not be allowed into the system for any reason. A file named CLOSED.BBS will be displayed (see Files Used by *WILDCAT!*), and the caller will be logged off immediately. The user's name and other information will not be added to the user database.

**Note:** Running as a closed board means that all user information must be added manually by the sysop for every user before they can gain access to the system. A CLOSED BOARD MUST FIRST BE SET AS OPEN TO ENABLE THE SYSOP TO LOG ON AND UPGRADE HIS OWN ACCESS. See the section "After Makewild" for additional information.

Should this item be toggled to CLOSED COMMENT, all new users will be denied access to the system just as in the previous choice, but prior to logoff they will be placed in the Comment message system to enter a note to the Sysop, if desired.

The final choice is CLOSED QUESTIONNAIRE which places all new users into a special questionnaire file named QUES-

NEW.BBS prior to being logged off the system. More information about Questionnaires is included in a later manual section.

### 7. Number of security levels : 4

This is the physical count for the number of security levels. The actual security level values are established later in the configuration procedure. Any number up to 50 may be entered here depending on your needs. Our default value of "4" will suffice for many systems. This would represent a different security level for (1) locked out users, (2) new users, (3) regular users, and (4) the system operator. The actual value depends on how many different classes of users will be making use of the BBS. Different levels will be allowed to have access to different message folders and file areas. Once you have configured the system to your particular application, this number may be increased or decreased. Whatever value is entered here will dictate the number of actual security levels that are entered later in this setup.

### 8. Number of bulletins : 6

In order to inform the user as to which bulletins have been updated since the user's last logon, *WILDCAT!* must be informed of the number of bulletins that are available. This number limits the acceptable responses at the Bulletin menu prompt and must be set properly. *WILDCAT!* will automatically check the file date/time for each bulletin and make a comparison to the callers last call date/time for notification purposes. The maximum number of bulletins supported is 9,999.

### 9. Number of message folders : 5

*Message folders  
and file areas  
have nothing in  
common except  
they both use  
letters for ID  
purposes*

**Note:** Folder "Y" is reserved for Deleted Message Review or the "Wastebasket" and Folder "Z" is reserved for Comments to the sysop. DO NOT Include these 2 folders in your answer.

The minimum acceptable value in this option is "0". *WILDCAT!* has the last two folders ("Y" and "Z") hard-coded for use as "Comments to Sysop" and "Deleted Message



Review", respectively. A value of "0" would then allow no additional message areas. A value of "1" would allow one additional area, to be named whatever you wish. Many systems only need a "Main" message folder with no other folders, in which case one would be sufficient. Alternately, as many as twenty-four additional folders (A-X) may be set up, each with its own security level restrictions which are assigned later.

#### **10. Number of file areas : 5**

Do not confuse the file areas with the message folders. They do not share the same values or names, and are usually not related in any way. For example, you could have the three message folders as mentioned above, and still maintain up to twenty-six (A-Z) file areas.

#### **11. Number of external file transfer protocols : 0**

The system needs to know how many file transfer protocols you will use that consist of programs that run OUTSIDE of the *WILDCAT!* code. Examples are KERMIT, ZMODEM, JMODEM, etc. You will enter the complete specifications for these protocols later in this setup procedure. See the section Advanced Features for an in-depth discussion of External Protocols.

#### **12. Number of external doors : 0**

"Doors" is the term given to other programs that your callers may run via menu selection from within *WILDCAT!*. Door programs are usually specifically written to perform input and output to the communications ports, and most standard DOS programs may not be easily operated as a door. Until the sysop is familiar with the BBS and has explored the requirements for door implementation later in the manual, we suggest this value be set to zero.

#### **13. Number of Questionnaires : 1**

This number should reflect the number of questionnaires available to callers from the Questionnaire menu. Do not include the Newuser Questionnaire in your answer.

WILDCAT! needs to know this information in order to intelligently prompt the caller for his choices.

### **14. Video adapter type : Auto Detect**

Although *WILDCAT!* has the ability to look at your system and determine what type of video card is attached, you may override this default selection. This may be necessary on some systems which have a single color monitor connected to a graphics controller card that does not display some colors properly. One example we have found is the AT&T 6300 series which requires a Mono setting. Most systems work best when set to Auto, and this is the recommended setting unless problems become evident. If a change is needed, toggle the available choice with the spacebar.

### **15. Screen foreground attribute : 7**

This setting refers to the color displayed on the LOCAL monitor when the caller is in non-color mode, and during local logon. It may be any valid DOS color number from 1 through 15. See Appendix B for the list of DOS color codes. If the caller has selected ANSI color menus then the local monitor will reflect the same colors as the caller, and display them in whatever manner is possible for the local monitor.

**After finishing this screen, you may press PgDn to move to the next screen, or ESC to return to the main MAKEWILD selection prompt.**

07-27-89

General Information - Part 2

11:27:37

1. Drop with errorlevel 60 after each call : N
2. Perform filtering of input : Y
3. Allow 300 baud calls from 00:00 to 23:59
4. Is the bulletin menu optional : Y
5. Time compensation ratio on uploads is 0 to 1
6. Display the quote of the day : Y
7. Prompt callers to kill received mail : Y
8. Disable downloads if over download/upload ratio : N
9. Place the modem "OFF HOOK" when Wildcat! is down : Y
10. Maximum log-on time limit : 60
11. Use free form phone numbers : N
12. Date format for country : 05/17/89 (MM/DD/YY)
13. Time format for country : 3:30p
14. Hold public messages until screened by sysop : N
15. Can users leave private messages : Y

Used for operation with a netmail "front-end". Most users should select NO

F1 for HELP - [F1] select question - [PgUp/PgDn] select page - [Esc] to exit

## General Information - Part 2

### 1. Drop with errorlevel 60 after each call : N

This option is primarily implemented as a means of calling a "front end" program used to handle net and echo mail. It functions exactly like an external event that is run after every call, and will be referred to as the Call Processing Event. Most systems will not need to enable this feature. See the section Advanced Features for a complete discussion of external events and implementation of this errorlevel 60 option, if needed.

### 2. Perform filtering of input : Y

This choice determines if the program attempts to filter line noise as it is received. The default is Yes, indicating that *WILDCAT!* will screen out any characters except normal alpha, numeric, and most punctuation. Hi-bit ASCII characters above #127 will not be passed to the program. Choosing Yes also restricts data entry at various system prompts to those characters that represent valid choices. Even the ENTER key

is ignored, unless it is pressed 5 times in a row, at which time the menu or prompt is redisplayed. If you choose to not perform filtering of input, then all ASCII characters are allowed at all times, including those above #127 representing the foreign character set.

### **2. Allow 300 BAUD calls from 00:00 to 23:59 hours**

There are rather strong feelings among system operators as to whether or not to permit 300 baud callers. It is not the intent of this document to take issue with these sentiments either way. For those who wish to disallow 300 baud callers during certain time periods, the option is provided. The default times allow 300 baud access at all time. Enter both start and stop time in 24 hour format, with one minute after midnight = 00:01 and noon is 12:00. *WILDCAT!* is aware of a caller's baud rate before knowing anything else about that particular caller. If a 300 baud call is received outside of the allowable time period, the caller is presented with a hard-coded default message, explaining that 300 baud callers are only allowed between the hours specified. Optionally, a special (and more lengthy) file may be created called NO300.BBS. See the "Files Used by *WILDCAT!*" section for more information.

### **4. Is the bulletin menu optional : Y**

*WILDCAT!* automatically scans the file date and time of all bulletin files and compares this information to that in the caller's user record. If a bulletin has been updated since the caller's last logon, a message will inform the caller as to which bulletin(s) have been updated. Otherwise, the caller is informed that NO bulletins have been updated since the last call, and is prompted as to whether the caller would like to view the bulletin menu. If this option is set to "N", the caller is forced to view the bulletin menu, whether or not any bulletins have been updated.

### **5. Time compensation ratio on uploads is 0 to 1.**

In order to encourage uploads, some system operators will grant a time "bonus" to those users who contribute to the

system's program files. The default of 0 indicates that no bonus is given. If the value is set to 2, the user is given twice the file transfer time in additional time allowed online for this particular call. For example, when set to 2 to 1, if a file requires 5 minutes to upload, the user will be allowed 10 extra minutes on the system. A "1 to 1" ratio would compensate the user for the actual time of the upload, meaning that his time remaining would be the same before and after uploading. A "0 to 1" ratio would not allow any time compensation, in which case the upload time would be counted against the user's existing logon time.

## **6. Display the quote of the day : Y**

The "Quote of the day" is an ASCII file created by the system operator. It may contain words of wisdom, quotes from famous people, cute sayings, insults, or anything else appropriate to the needs of the system. The file contents are presented sequentially starting with the first item in the file, and incremented by one following each new logon to the system. The quote appears just prior to the main menu. When the end of the file is reached, it starts again from the beginning. A "quote" consists of any number of lines of text, each of which is terminated by a carriage return. There must be a blank line (just a carriage return) between each quote since *WILDCAT!* assumes an individual quote has ended when it sees two carriage returns in a row.

If this option is set to "Y", *WILDCAT!* will look for the file *QUOTES.BBS*. If the file is not found, the code will continue to run, but will generate an error message to both the local monitor and the caller. Until you have created this file, it is better to set the option to "N". For more information on creation of this file, refer to the "Files Used by *WILDCAT!*" section of the manual.

## **7. Prompt callers to kill received mail : Y**

This choice determines the content of the line sent to callers after re-reading an authored message which has been received. A "Y" response results in the caller getting the message "Message has been received, please [K]ill it, if it is no

longer needed". A "N" response simply advises the caller that his mail has been received by the other party.

### **8. Disable downloads if over download/upload ratio : N**

If answered "Y" the caller will be prevented from downloading any additional files until his ratio meets the criteria set for his security level in Security level Definition - Part 2. Each level may have an individual ratio. If set to "N", a warning message will be sent, but download activity will continue to be allowed.

### **9. Place the modem "OFF HOOK" when Wildcat! is down : Y**

When set to "Y", and the system is brought down for whatever reason, *WILDCAT!* will automatically send a message to your modem to place the phone off hook (busy). This would be advisable if your board were running on a dedicated phone line, since the caller will receive a busy signal and think that the system is busy rather than being off-line.

### **10. Maximum log-on time limit : 60**

This is the MAXIMUM time ANY user will be allowed to stay on the system during a single call REGARDLESS of the time set for his security level. It is a time PER CALL. If it is less than the amount of time allowed for a callers security level time, the user may call back a second or third time the same day and get the balance of time remaining.

### **11. Use free form phone numbers : N**

The default value of "N" indicates that phone numbers will be automatically formatted as 000-000-0000, and the system will supply the punctuation characters. Since many foreign phone numbers do not follow this format, the "N" option allows entry of phone numbers as a numeric field of 13 characters with dashes as needed.

### **12. Date format for country : 05-17-89**

The format for the date may be changed as needed. Toggle the available choices using the spacebar. The selected format will be reflected in all displays to your callers.

**13. Time format for country : 11:32 am**

The time format may also be changed by pressing the spacebar to use different delimiters or military vs. am/pm formats.

**14. Hold public messages until screened by sysop : N**

If this value is set to "N", any message entered to "ALL" users is posted on the system immediately. By setting the default to "Y", all messages intended for public viewing must be screened for content, then manually toggled from private to public by the system operator. Normally this value is set to "N", since most users are reputable. It is only in the event that a lot of users post public messages that contain information that is abusive, libelous, or perhaps contain confidential information or profanity is this option needed.

**15. Can users leave private messages : Y**

By entering "N" to this prompt, a user is still permitted to enter messages to selected users, but the private flag is removed. Selecting "N" prevents any PRIVATE mail. This feature may be used at your discretion, and may be useful in certain applications. In most cases, you will probably want to leave the value as "Y".





07-27-89

General Information - Part 3

11:28:03

1. Allow sysops to drop to DOS from remote : N
2. Database file safety mode : Partial
3. Automatically clear screen before menus : Y
4. Swap Wildcat! out of memory during shell to DOS : N
5. Use EMS for swap data during shell to DOS
6. Hold overlay in EMS if available : N
7. Extra memory in K for overlay buffer : 0
8. Extra memory in K for database buffer : 0
9. Will you be offering dynamic menus : Y
10. Will you be offering color ANSI menus : Y

You can lock out remote drop to DOS here, even for the sysop

F1 for HELP - [F1] select question - [PgUp/PgDn] select page - [Esc] to exit

## General Information - Part 3

### 1. Allow sysops to drop to DOS from remote : Y

If this prompt is answered with "Y", and the caller's security is high enough to permit it (we suggest that only sysops be allowed this choice), the caller may actually exit *WILDCAT!* and assume control of the computer's operating system. It is unlikely that anyone other than the system operator, when calling in from a remote location, will ever need this option. Setting this value to "N" will prevent use of the Remote Drop to DOS option on the sysop menu.

**Caution:** This is not only a powerful option, but potentially a very dangerous one. Unless other safeguards are implemented, a caller has total and absolute control over your entire operations, including erasing the contents of your hard drive! Unless you are totally familiar with the operating system, batch files and related areas, you are strongly encouraged to set this value to "N".

### 2. Database file safety mode : Partial

As a default feature, the databases that control files, messages, and users will perform integrity checks as data is changed. Setting this parameter to "None" result in slightly faster database operation, but the possibility of database contamination due to system surges or other problems is higher. As new information is added, the "partial" safety mode will perform checking on each database change, and will not finalize any data writes to the main data file unless all index files have also been successfully updated. "Full" safety mode adds yet another level of protection, that of a separate "diagram" file with the extension .DIA to track database entries. "Full" safety mode demands additional processor and disk time, and is recommended only on networks with very fast access such as Novell. Remember, there is little danger from a database integrity problem, even with safety mode set to "None" since the WCREPAIR program can rebuild a damaged database very easily.

### 3. Automatically clear screen before menus : Y

Depending on your preference, you may clear the caller's screen prior to each menu being displayed. Experiment both ways and take your choice. Keep in mind that you also have the ability to embed a clear screen code (ASCII 12, the Form Feed character) at the beginning of your own menus, if desired.

### 4. Swap WILDCAT! out of memory during shell to DOS : Y

The answer to this question determines whether all DOS command shell or exec procedures attempt to "unload" the *WILDCAT!* code from memory during processing. A shell or exec takes place whenever a second copy of the command processor (COMMAND.COM) is loaded, such as when a local user presses ALT-D (local drop to DOS), when external file transfer protocols are implemented, and when the [V]iew a compressed file function is requested. In these situations *WILDCAT!* would normally be left inactive in memory, with instant return after the shell was completed. Leaving the program in memory results in very quick return, but the

memory used by *WILDCAT!* is not available in the shell. If you elect to swap the program out of memory, the system will regain use of almost full memory capacity during the shell procedure. The following question deals with the type of swap to be performed if the swap is requested.

#### **5. Use EMS for swap during shell to DOS.**

The two alternatives here, EMS or DISK, are toggled with the spacebar. This question may be ignored and has no effect if you have answered NO to the previous question. If you do not have EMS then disk is your only choice. Keep in mind that a swap to disk will take time, time to write the entire *WILDCAT!* program from memory to disk, and then time to reload it to memory when the shell is completed. If disk is your only choice, you may want to change question 3 to NO, unless you absolutely must have additional memory available during shell procedures. If EMS is available and is selected, shell swapping takes place very quickly, and makes huge amounts of memory available very quickly.

#### **6. Hold overlay in EMS if available : Y**

The overlay file for *WILDCAT!* contains procedures which are moved into and out of the main program code as needed. Every time a portion of the overlay file is needed by the main program, a disk read is made from the file. Although this does not usually cause a noticeable delay, loading the entire overlay file into EMS results in instantaneous access.

#### **7. Extra memory in K for overlay buffer : 0**

As indicated in the previous question, portions of the overlay file are read into a reserved space in the main *WILDCAT!* program as needed. The size of this space (always in the base 640K memory area) may be expanded to hold more of the overlay file if desired. The advantage might be if a system did not have EMS, and wanted the entire overlay to always be available without reloading from disk. This field will accept a memory value in K up to the size needed to hold the entire overlay in regular memory. Note: If EMS is used for the overlay there is no speed advantage in allocating additional

buffer space since all overlay calls will be made from memory anyway. In addition, specifying additional buffer space will result in decreased memory available in a DOS shell unless swapping is in effect, since the overlay buffer actually becomes a part of the main *WILDCAT!* code. If you are swapping to EMS (or even disk) during a shell, the extra memory used shouldn't matter.

### 8. Extra memory in K for database buffer : 0

As information is read from the database files (users, files, and messages), the most recently read information is held in a series of buffers in anticipation that additional data requests will want adjacent information. This tends to be true for many database requests, especially message information. You may specify that additional memory be allocated to this buffer area resulting in even faster access to database information. Your entry (in K) will be automatically adjusted to the nearest acceptable value based on current default allocations.

### 9. Will you be offering dynamic menus : Y

Dynamic menus are those generated entirely by *WILDCAT!* based on your answers to questions here in *MAKEWILD*, and they only apply to non-color callers. Later screens will ask that you specify the text for these dynamic menus if they are to be used. The advantage of dynamic menu generation is that the entire text of each menu is precisely tailored for each and every user based on their security level. If you answer N to this prompt, your system will make use of text menu files created by the sysop for both non-color and color callers (samples are included). For each menu (MAIN, MESSAGE, FILE, and SYSOP) your users will receive one of 10 text menu files, again based on their security level. Only if a text menu does not exist will a dynamic menu be sent. Answering "Y" here will send dynamic menus as configured here in *MAKEWILD* to all non-color callers. The alteration and maintenance of these menu file is covered later in the manual.

## 10. Will you be offering Color ANSI displays : N

You may elect to offer color ANSI menus to those callers asking for color regardless of your preference in using or not using dynamic menus for non-color callers. Set this option to "Y" if you want to offer menus and other display files in color to your callers. This choice makes use of menus and display files created by the sysop which contain the ANSI color code sequences. For each menu (MAIN, MESSAGE, FILE, and SYSOP) your users will receive one of 10 ANSI coded text menu files, again based on their security level. A set of "generic" ANSI menu text files are included with your program. The alteration and maintenance of these menu files is covered later in the manual. These files end in the extension .SCR and are required in addition to their non-color counterparts ending in .BBS. More detailed information is presented in the "Files Used by *WILDCAT!*" section of the documentation. It is not necessary to load ANSI.SYS or to have a color monitor on the host system to offer color to callers. Your callers (if equipped for color) will see the appropriate color displays, and of course your system will also display the color screens correctly when a user is online. For creating and reviewing your color display screens and menus from outside the code, ANSI.SYS should be installed, and a special ANSI color editor is recommended.



07-27-89

Modem Setup - Part 1

11:28:23

1. Which communications port do you want to use : 1
2. Maximum # of seconds to wait for carrier : 30
3. Enter the string to reset your modem : ATZ
4. Modem startup string #1 :
5. Modem startup string #2 :
6. Modem startup string #3 :
7. Reinit after every call : ATU0M0Q0E0X1SZ=Z55S0=0&C1&DZ
8. Modem off-hook string : ATH1
9. Modem on-hook string : ATH0
10. Modem delay #1 : 2500
11. Modem delay #2 : 2500
12. Modem delay #3 : 2500
13. Number of milliseconds to delay before displaying prelog file : 0
14. Initialize your modem port at which baud rate : 2400
15. Lock the DTE setting at the initialized baud rate : N

Press F3 to choose a modem from the list available!

F1 for HELP - [↑] select question - [PgUp/PgDn] select page - [Esc] to exit

## Modem Setup - Part 1

Interfacing with many different modems is one of the most difficult areas in any program that deals with the computer's communications ports. If your *WILDCAT!* installation is not working the way you believe it should, more than likely the problem will be in this area. The default values represent those for the generic modem choice STD\_2. *WILDCAT!* requires your modem adhere to the "Hayes AT command set" for proper operation.

In an effort to provide the easiest setup, we have provided preset configurations for many of the most popular modems. Before changing any settings, press the F3 key to review the list of predefined modems. If your modem model is listed, simply use the arrow keys to highlight the proper choice and press ENTER. The correct settings will automatically be written to this screen and Modem Setup - Part 2.

If your modem does not appear on the list, you should use the guidelines below to select one of the three generic choices:

**STD\_1** - Standard modem setup #1. This type of modem usually has a maximum speed of 300 or 1200 baud but may also support 2400 baud. It does not have non-volatile RAM in the modem to store the AT settings on a permanent basis. It does not support the extended Hayes commands &C, &D, or &W. It does use a set of dip switches to control modem features such as the DTR line, Carrier Detect, etc.

*Check your settings after import with F3, and then save them with F4 if you have made important alterations*

**STD\_2** - Standard modem setup #2. This type of modem usually has a maximum speed of 2400 baud, does not have non-volatile RAM in the modem to store the AT settings on a permanent basis. It does not have many dip switches for modem control other than com port address. It does support the Hayes extended commands such as &C and &D.

**STD\_3** - Standard modem setup #3. This type of modem usually has a maximum speed of 2400 baud, does make use of non-volatile RAM in the modem to store the AT command settings. It does not have many dip switches for modem control other than com port address. It fully supports the extended Hayes command set including &C, &D, and &W to write the settings to the non-volatile RAM.

Once you have selected a modem and imported the settings using the F3 key, very few changes will need to be made in Modem Information - Part 1 or Modem Information - Part 2. You must still check question 1 and 14 for accuracy. The default communications port is COM 1 and may need to be changed. Question 14 should be set to reflect the highest speed supported by your modem, and should be locked only if you are using a high speed modem. Refer to the discussion of question 14 for more information.

When you have finished with the modem setup screen you can save your values to disk with the F4 key, if desired. We suggest you do so ONLY if you have made alterations to the standard values, or if you have created a workable setup for a modem that was not listed in the pre-defined modem list. If you have simply altered the settings for a pre-defined modem type we suggest that you save your revised settings under a different name to preserve the pre-defined values. If you have created a setup that operates well for an undefined modem, please feel



free to upload it to our private BBS for registered users. We will make the settings available in future releases of *WILDCAT!*, and will post the settings for other sysops.

After completing your modem setup you may want to take the time to check each entry with information provided in your modem's user manual. This exercise will help to familiarize you with the modem initialization being used in your *WILDCAT!* system.

The following review of each individual question is presented for the use of experienced sysops who wish to make more precise adjustments and changes to their setup parameters. Remember, both this screen and the next have been set up properly if you made use of a pre-defined modem with F3.

### **1. Which communications port do you want to use : 1**

The system can use any communications port number available on your system from 0 through 9. For local operation set the port to 0 and no output will be sent to the modem. After entering the correct number, you may alter the port address or IRQ (interrupt request) line for your selected port by pressing the F2 key. By default, Com1 and Com2 make use of the standard port addresses for the PC (COM1 uses IRQ 4 and address 3F8; COM2 uses IRQ3 and address 2F8), while Com3 and Com4 use the pre-PS2 standard (COM3 uses IRQ 4 and address 3E8; COM4 uses IRQ 3 and address 2E8). The port addresses as well as the IRQ for each port may be changed if needed. We strongly suggest that you do NOT change these values unless you have experience with communications addressing and have a solid reason for making such a change. To alter the port and IRQ values press the F2 key and edit the information as needed.

**Note:** COM1 and COM3 make use of the same IRQ line and COM2 and COM4 make use of another line. If you are making use of COM3 or COM4 using the default IRQs, you may NOT use COM1 or COM2 with the same IRQ numbers. Duplication of interrupt numbers will cause erratic operation. As an example, if you connect a mouse to a standard COM1

(IRQ 4) you may not set your internal modem to COM3 with IRQ 4.

### 2. Maximum # of seconds to wait for carrier : 30

This setting indicates how long your *WILDCAT!* will wait for a carrier signal (connect) from a caller. The default of 30 seconds is the standard for most modems, and is the recommended setting. This value represents how long *WILDCAT!* will wait before re-cycling, and MUST agree with your modem's S7 register. If it is changed to a lower or higher value, be certain to reflect the change by adding an appropriate S7=# command in the modem startup strings, as indicated below.

### 3. Enter the string to reset your modem: ATZ

Enter the command string that resets your modem to its default settings. This command should almost always be ATZ.

### 4. Modem startup string #1:

This is the first of three possible modem startup strings which are sent ONLY upon startup of *WILDCAT!*. Usually these startup strings are only needed by modems making use of non-volatile RAM to store the setup values. All three startup strings are sent just once when *WILDCAT!* is started, and the last one should contain the command to save the settings, usually &W. These saved settings are then recalled from modem memory after each call with a short ATZ command. Most modems without non-volatile RAM will leave the 3 startup strings blank, and send the modem initialization string after each call to ensure it is set properly.

**5. Modem startup string #2:****6. Modem startup string #3:****7. Modem initialization after every call:**

**ATV0M0Q0E0S0=0S2=255S7=30X1&C1&D2**

Enter the command(s) that initialize the modem into its receive calls state. *WILDCAT!* automatically sends this initialization string following each logon, whether the logon was successful or not. The statement above means:

ATV0	=	Turn on numeric result codes so Wildcat! can determine baud rate
M0	=	Turns off the modem speaker
Q0	=	Result codes are displayed
E0	=	Echo result codes to terminal
S0=0	=	Disable auto-answer by modem and let Wildcat! monitor ring detect
S2=255	=	Disable + + + as the modem attention string (important)
S7=30	=	Set # of seconds to wait for carrier to match your answer to question #2
X1	=	Extended result codes, needed to send a different result number for connections at each baud rate
&C1	=	Have carrier reflect reality rather than be forced true all the time
&D2	=	Have the modem react to the DTR (data terminal ready) line properly. This setting indicates that when the modem sees a lowering and raising of DTR it should go on hook (hang up) and return to command state.

If your modem supports the X command, you should include the X1 or a similar extended result code value in this reinitialization string. Use the value that corresponds to the lowest number that sends a different result code for 300, 1200 and 2400 baud connections. This is usually X1.

### 8. Modem off-hook string : AT H1

This string is used whenever *WILDCAT!* needs to “pick up the receiver”, with the exception of answering calls. It is sent when the program is terminated with F10 to place a busy signal on the line, providing you have requested placing *WILDCAT!* off hook when the system is down. (another MAKEWILD choice). Other commands you may want to include in this field are: V1 if you need to return your modem to verbal codes when leaving *WILDCAT!*; M1 if you want to turn your modem speaker back on; or perhaps even remove the H1 if you do not want to actually go off hook when F10 is pressed.

### 9. Modem on-hook string : AT H0

### 10. Modem delay #1 : 2500

### 11. Modem delay #2 : 2500

### 12. Modem delay #3 : 2500

The above delays are necessary and vary from modem to modem. The goal is to enter the minimum value that operates properly.

Delay 1 is the delay between sending each startup string in number 4-6 above. If you need to review the modem result codes as they are sent and displayed on the “waiting for calls” screen, you can increase this number to a value of 2000 (2 seconds). This is ample time to review and record the modem responses for checking your result codes.

Delay 2 is the time before sending the modem reset string ATZ (#3 above) as well as the delay between the reset and the startup string (#4 above). We have determined that many modems need at least 1.1 seconds (1100 ms) to properly handle another command after an ATZ, and values below 1100 are not permitted.

Delay 3 is used differently depending on whether *WILDCAT!* will answer the phone by use of pin 22 ring detect or by allowing the modem to use the auto answer feature. This

choice is selected in the next screen. If ring detect is used, the delay is the time between ring being detected and *WILDCAT!* sending an ATA answer command to the modem to tell it to answer the phone. In the case of auto answer being used it is the time it waits after the modem answers the phone before it begins looking for carrier detect.

**13. Number of milliseconds to delay before displaying prelog file: 0**

Some modems delay a short time after answering the phone and establishing a connection. If you find your callers are missing some of the PRELOG.BBS display file, or are not receiving the prompt for First Name properly, you may add a delay so the program will wait an appropriate amount of time. Try the default of 0, and if problems develop as indicated increase the value to 1500ms (1.5 seconds).

**14. Initialize your modem port at which baud rate : 2400**

This value is changed by pressing the spacebar to toggle through all valid choices. Some modems can step up to match the baud rate of an incoming call while others can only step down. If you are unsure about the modem's capabilities, enter the value that represents the modem's fastest baud rate.

**15. Lock the DTE setting at the initialized baud rate : N**

This choice is provided as an option to help you make full use of the new high speed 9600 & 19200 baud modems. It allows you to lock the link between your computer and your modem at a rate higher than the callers connection rate, usually 19200 baud. Choosing to lock your DTE (data terminal equipment) rate will result in *WILDCAT!* sending all data to your modem at the initialized baud rate, regardless of the connection rate. This allows faster throughput with some modems using hardware error checking by maximizing data transfer from the computer to modem. An example is the US Robotics HST which functions well with the communication port locked at 19200 baud and allows the modem to control data flow from your modem to the callers modem at the fastest speed possible, sometimes even exceeding the quoted modem speed. Locking

the port can cause problems with some doors because the door expects the port to be at the baud rate of the caller rather than some higher rate. If you do not have a high speed modem you should not lock the baud rate.

07-27-89

Modem Setup - Part 2

11:29:35

1. Answer phone using : Ring Detect
2. Determine baud rate using : Result Codes
3. Numeric code for 300 baud non-reliable : 1
4. Numeric code for 1200 baud non-reliable : 5
5. Numeric code for 1200 (v. 22) baud non-reliable : 99
6. Numeric code for 2400 baud non-reliable : 10
7. Numeric code for 9600 baud non-reliable : 99
8. Numeric code for 19200 baud non-reliable : 99
9. Numeric code for 300 baud reliable : 99
10. Numeric code for 1200 baud reliable : 99
11. Numeric code for 1200 (v. 22) baud reliable : 99
12. Numeric code for 2400 baud reliable : 99
13. Numeric code for 9600 baud reliable : 99
14. Numeric code for 19200 baud reliable : 99
15. Does your modem support CTS/RTS flow control : N

Toggle with the spacebar - Use Ring Detect if possible

F1 for HELP - [↑↓] select question - [PgUp/PgDn] select page - [Esc] to exit

## Modem Setup - Part 2

### 1. Answer phone using : Ring Detect

Pressing the spacebar toggles through the two choices for this field. Most contemporary modems have the ability to "Auto Answer" the phone when ringing is detected. For this to happen however, either the auto answer switch on your modem must be set to on or you must have the command S0=1 (answer on ring 1) in your initialization string. Rather than set up your system for auto-answer, a better arrangement is to select "Ring Detect" and allow WILDCAT! to watch for the ring itself. In order to do this, WILDCAT! monitors the status of pin 22 on the modem connector. This is one of the reasons you must have the appropriate pins connected on your modem cable. If you elect to use ring detect, you should have S0=0 (zero) in your initialization string. If you intend to make use of doors you are strongly advised to answer by ring detect. See the cautions regarding doors for additional information.

*It is suggested that you use Ring detect rather than auto-answer for better security and reliability*

### 2. Determine baud using : Result Codes

Pressing the spacebar toggles through the two choices for this field. The use of result codes is recommended. If your modem cannot generate numeric result codes that can be used by the software, it will be necessary to toggle this option to "Carriage Returns". This choice means that the caller must enter one or more carriage returns and spaces after connection in order for the system to determine the baud rate. The use of "Result Codes" is highly encouraged for accuracy and speed in completing a connection.

### Questions 3-14

**Numeric code for 2400 baud non-reliable : 10**

**Numeric code for 2400 baud reliable : 99**

This series of 12 questions lets *WILDCAT!* know how to determine the caller's baud rate, and whether the connection is making use of hardware error checking by both modems. The standard (non MNP/ARQ) codes for every modem should be entered in lines 3-8 for the speeds supported by the modem. These are standard connect codes and most modems use the same ones for 300-2400 baud.

Note that 1200 baud has a second set of "alternate" result code choices. This is due to the need to support two modem standards for 1200 baud in some countries. The program will respond at 1200 baud if either of the two 1200 baud codes is received. Most users will place the 1200 result code in the first field and 99 in the second. Enter the value 99 for any unsupported speed or connection type.

The reliable choices (lines 9-14) refer only to modems that support internal hardware error checking such as the Microcom Network Protocol (MNP) or ARQ (Automatic Repeat Request by US Robotics). Most MNP/ARQ modems are able to send a different numeric result code if the connection is made with another MNP/ARQ modem. This type of connection, if supported, allows the modems on either end of the connection to perform error checking internally, allowing



the use of fast block oriented protocols written specifically for modems with a "reliable connection". If *WILDCAT!* makes a connection with an MNP/ARQ result code it assumes that the modems on both ends are capable of supporting file transfers using YMODEM-G and 1K-XMODEM-G, protocols that are very fast and perform no error checking by the protocol itself. If your modem does not support MNP/ARQ you should enter 99 in all of the result code choices in lines 9-14.

#### **15. Does your modem support CTS/RTS flow control : N**

Many modems can make use of the Clear To Send (CTS) and Ready To Send (RTS) signal to tell the other modem when data should be sent, and when to wait. CTS/RTS is used by the modems to tell one another when their respective send/receive buffers are full or empty. If your modem supports CTS you **MUST** enter "Y" to this prompt. Virtually all 9600 baud modems, as well as those supporting MNP/ARQ make use of CTS/RTS for flow control.

**FAILURE TO INDICATE THAT CTS IS AVAILABLE FOR MODEMS THAT SUPPORT MNP/ARQ WILL RESULT IN LOST DATA DURING TRANSMISSION, ESPECIALLY IF YOU HAVE LOCKED THE COMMUNICATION PORT AT THE INITIALIZED BAUD RATE.**



07-27-89	Message Folder Setup	11:29:57
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<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; width: 10%;">Ltr</th> <th style="text-align: left; width: 90%;">Description</th> </tr> <tr><td style="border-top: 1px solid black;">Y</td><td style="border-top: 1px solid black;">Deleted Message Review</td></tr> <tr><td>A</td><td>General Mail Folder</td></tr> <tr><td>C</td><td>Ham Radio Mail</td></tr> <tr><td>E</td><td>Private - Pilots only</td></tr> </table>	Ltr	Description	Y	Deleted Message Review	A	General Mail Folder	C	Ham Radio Mail	E	Private - Pilots only	<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; width: 10%;">Ltr</th> <th style="text-align: left; width: 90%;">Description</th> </tr> <tr><td style="border-top: 1px solid black;">Z</td><td style="border-top: 1px solid black;">Comments to the Sysop</td></tr> <tr><td>B</td><td>Questions about WILDCAT!</td></tr> <tr><td>D</td><td>IBM Software Reviews</td></tr> </table>	Ltr	Description	Z	Comments to the Sysop	B	Questions about WILDCAT!	D	IBM Software Reviews
Ltr	Description																		
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D	IBM Software Reviews																		

Folder Y may be renamed, but will still hold deleted messages
---

F1 for HELP - [↑] select question - [PgUp/PgDn] select page - [Esc] to exit
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## Message Folder Setup

The number of message folder letters available in this frame is determined by the value entered in General Information - Part 1, question nine. In the default example, there were 5 message folders requested. That value is automatically converted to folder letters "A" through "E" in this frame, plus the hard-coded "Y" and "Z" areas. To get a clearer understanding of this, while running MAKEWILD use your PgUp key to go back to General Information - Part 1. Change the value of question nine to "2". Then return to this screen and observe the results. You should find folder letters "A" and "B" plus "Y" and "Z" with their associated descriptions. Don't forget to change the value back to the actual number of different message areas you need.

You may edit the descriptions to anything you feel is appropriate to describe a particular folder's contents, including those following letters "Y" and "Z". Keep in mind that although you may change the descriptions for folders Y and Z, the purposes of the folders remains the same, holding deleted

*Changing the names of File Folders is easy and you are encouraged to name them appropriately*

messages for Y and comments for Z. For example, you may wish to change folder "A" from "General Mail Folder" to "Main Message Area". Try it, using the editing keys described earlier. You can always change them back later. Also remember that no changes are permanent unless you choose to save your setup options upon exiting MAKEWILD. The folder names you enter here are displayed to your callers when they finish entering a message or reply. They are given a choice of folders in which to place the new message, limited by their security access to the folders (defined later).

07-27-89	File Section Setup	11:38:11	
Ltr	Description	Ltr	Description
-	-	-	-
A	Communication Programs	B	Word Processing
C	Database Programs	D	Turbo Pascal Utilities
E	Newly Received Uploads		

Each file area should be given a name descriptive of it's contents

F1 for HELP - [↑↓] select question - [PgUp/PgDn] select page - [Esc] to exit

## File Section Setup

The number of File Area letters presented on this screen are determined by the value entered in General Information - Part 1, question ten. The descriptions may be edited just like the message folder setup, including the letters "Y" and "Z".

The file area letters "A", "B", etc. are in NO way related to your message folder letters. Files and messages just happen to both make use of letters of the alphabet for tagging the respective folders or areas.

The descriptions you enter here will be the text that is displayed as titles of the file areas when the [L]ist files command is used. *WILDCAT!* allows you to group your files available for download by areas or categories, with the actual files for each category stored in a different subdirectory on your hard disk. The file area names should describe the files which are contained in each subdirectory. Later in this setup you will indicate the specific subdirectory names associated with each file area. If this is not yet clear to you, perhaps take a look at

the next screen (use PgDn) before changing anything on this frame. You can then see that the descriptions entered here for each file area describes the actual files found in the sub-directories entered in the File Path Definitions screen. For example, area "D" is "Turbo Pascal Utilities" here, and the subdirectory path in the next screen for file area "D" is pointing to a subdirectory named "TURBO" where all the files are physically located.

07-27-89	File Path Definition	11:30:21
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Ltr	Path	Ltr	Path
A	C:\WILDCAT\COMM\	B	C:\WILDCAT\WORDS\
C	C:\WILDCAT\DB\	D	C:\WILDCAT\TURBO\
E	C:\WILDCAT\UPLOADS\		

The physical location of files for each area, press F2 to list your areas	
F1 for HELP - [↑↓] select question - [PgUp/PgDn] select page - [Esc] to exit	

## File Path Definitions

The number of file paths shown on this screen correspond to the number of file areas requested in General Information - Part 1, question 10. For each file area letter you must specify the path to locate the files in that area. Since you probably have forgotten just what names you gave to each area letter, pressing F2 will pop-up a reminder screen with each file area and its associated description. In this example, all file paths are sub-directories below WILDCAT. This makes tracking your files easier, since everything concerning the bulletin board system is now in the same area of your hard drive. You may at your option place the directories anywhere you wish, including the root directory and/or another drive! For example, suppose you wanted all new uploads to go to a subdirectory named NEWFILES located directly below your root, all you would have to do is change the path for file area E above as follows:

Before change

E C:\WILDCAT\UPLOADS\

*Make certain  
that the  
subdirectories  
you specify exist  
for proper  
operation*

After change

E C:\NEWFILES\

**Note:** All path names must end with a backslash (\) such as C:\WILDCAT\UPLOADS\. MAKEWILD will automatically add the \ to the end of any path that omits it, unless the path is a single drive letter referring to a root directory. All single drive letters alone, followed by just a colon (M:) are stripped of the backslash character (again automatically) to allow assigning drive letters to subdirectory names under either DOS or using a network mapping scheme. The general rule is to let MAKEWILD determine when the \ is needed. This note is simply for your information in the event you notice that the backslash appears on some file paths and not others.

MAKEWILD will check every path specified on this screen at the time of entry. A warning will be issued if the path does not already exist reminding you that it must be created prior to using *WILDCAT!*. Subdirectory creation is done from the DOS level.

For additional information on setting up file paths, consult your DOS manual.



07-27-89	Security Level Definition - Part 1		11:30:48
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Lev	Message Folder Access	Download File Area Access	DTL	Menu
1			5	1
5	ABDEZ	ABCE	30	2
10	ABCDZ	ABDE	60	5
1000	ABCDEZ	ABCDE	120	9

Enter a number for each level	
F1 for HELP - [F1] select question - [PgUp/PgDn] select page - [Esc] to exit	

## Security Level Definition - Part 1

The number of lines available for security level entries on this screen will directly coincide with the value entered in General Information - Part 1, question seven. Since the maximum number of security levels possible is 50, it is very possible that MAKEWILD will be unable to display the total number of levels you have defined on one screen. If that is the case you will notice a small down arrow at the lower portion of the screen indicating that there is more information available. Moving your cursor past the bottom of the screen will cause the entire screen to scroll upward to allow access to the balance of the fields. As you scroll down a small up arrow will appear at the top of the screen reminding you that there is additional information above. This same scrolling screen display is used in a number of MAKEWILD presentations later in our configuration.

Each screen line should contain (from left to right) a number representing a security level; a series of message folder letters to which that level will be given access; a series of file area

letters from which that level will be able to download files; the Daily Time Limit (DTL) for that level; and the ANSI color menu numbers displayed for that level. Each of the above items will be reviewed in detail in the following discussion.

### LEV (level)

The first thing to do is decide the numbers you will use as designators for your security levels. These numbers will be used in the next few screens to assign access rights for callers at each level. In our example we have only established four levels, one for “locked out” users (those who have virtually no access due to some action), new users, regular users, and the system operator. The actual numbers used are of no particular significance, except that access to menu choices is extended on a “minimum level required” basis. For example, the ability to [E]nter a message may require a minimum level of 15, which indicates all levels above 15 may enter new messages. This “minimum level required” access is NOT used in this frame when assigning message folders and download area access. For example, note that our default example screen shows security level 5 with access to message folders A, B, D, E and Z, while level 10 only has access to A, B, C, D and Z, with NO ACCESS to E. Each level is an individual entity, with its own unique access rights to messages and files.

### Message Folder Access & Download File Area Access

Enter the letters of your previously defined message folders on each line, indicating those folders to which each level should be given access. To refresh your memory press F2 for a list of your defined message folder or file area names. Enter the letters without spaces or punctuation, and repeat this process to assign download area access for each level. Note that extending download access in a particular file area does not automatically allow callers at that level to upload files to the specified area. Further security definition in the next screen allows you to specify where callers may place uploaded files.

A few additional words of explanation are in order here to prevent possible confusion. In the example above, access is

granted for all levels to place messages in the "Z" folder which contains the Comments to the system operator. This access allows callers to use the main menu [C]omments choice and for the sysop to place his replies in the "Z" folder for reading on the user's next call. Each level with "Z" access is also permitted to leave comments to the system operator from the message menu when entering a message by electing to save the message to the "Z" folder. All mail entered as [C]omments from the main menu are private, although messages from the message menu may be saved in "Z" by the caller as a public message, if desired. All levels with access to "Z" can also read mail placed in the "Z" folder by themselves or others, provided it is not private mail.

Callers are NOT able to receive and read personal mail which has inadvertently been placed in a folder to which they are denied access. If a message is addressed to a particular user and the user complains that he is unable to read the message, he probably has no access to the folder in which the message resides.

### **DTL**

The caption DTL stands for "Daily Time Limit", and sets the total number of minutes a user at the specific security level may be connected during a day. The number of minutes set for DTL may be split during any number of calls during the daily period, with the maximum PER CALL controlled by your answer to General Information - Part 2, question 10.

### **ANSI & BBS**

The final field, ANSI & BBS, relates to the COLOR (.SCR) & ASCII non-dynamic menus (.BBS) available within *WILDCAT!*. Prior to entering any values here, a short discussion of menus is in order.

There are four basic menus within a *WILDCAT!* system; MAIN, MESSAGE, FILE, and SYSOP. By default, when a caller reaches a menu prompt *WILDCAT!* examines the caller's security level and dynamically generates ONLY the choices to which the caller has access. Callers will not even

know about menu functions to which they have no access. This dynamic menu generation is the default in *WILDCAT!*, but the Sysop may also allow the use of color menus, or even suppress the dynamic displays and send plain text menus. These parameters were previously set up in General Information - Part 3, questions 9 & 10, "Will you be offering dynamic menus" and "Will you be offering color ANSI menus". If you are not using dynamic menus, you must create text .BBS menus. If you are offering color ANSI menus you must create .SCR menus. Since both .BBS and ANSI color .SCR menus are simply disk based files, if we have only one for the MAIN, MESSAGE, FILE, and SYSOP menus it must contain all menu choices. This is not really acceptable since our goal is to present callers only with choices to which they have access based on their security level. Therefore we allow the sysop to create not one, but 10 different .BBS and .SCR color menus for each of the MAIN, MESSAGE, FILE and SYSOP menus. The first of these ten menus might be designed for a low security level such as 5, and would display only a those functions available to level 5 as defined later in MAKEWILD. Another may be designed for level 10 and would include all of the menu choices defined for level 10 in the dynamic menus. These menu files must be created by the Sysop, and should reflect the keypresses needed for each menu function as defined for the dynamic menus. Using the main menu as an example, the ANSI color menu files are named MAIN0.SCR through MAIN9.SCR, with the numbers 0 to 9 differentiating each version. A sysop making use of ANSI color menus must become familiar with the creation and maintenance of text files containing the ANSI color codes. The section "Display Files Used by *WILDCAT!*" reviews the procedures for proper generation and naming of these files in depth.

The ANSI & .BBS menu field on this screen is used to indicate which of the 10 possible ANSI color menu and .BBS menu numbers will be used for each security level when a caller is using non-dynamic menus. Valid numbers are from 0-9, with no particular significance given to a higher number. If a user is supposed to receive one of these numbered menus (either color or non-color), *WILDCAT!* will attempt to locate the appropriate version of the menu for display. If the properly

numbered menu file does NOT exist in the menu area, *WILDCAT!* will post a notice in the *ACTIVITY.LOG* and display the correct dynamic menu instead.



07-27-89	Security Level Definition - Part 2	11:31:02
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Lev	UPLOAD File Area Access	DL's «« Maximum »»	DL K Bytes	Ratio
1		0	0	0
5	E	0	0	0
10	E	25	1000	0
1000	ABCDE	100	9999	0

Extend upload rights to which areas, pres F2 for a listing

---

F1 for HELP - [↑↓] select question - [PgUp/PgDn] select page - [Esc] to exit

## Security Level Definition - Part 2

You have previously defined the number of file areas for your system in General Information - Part 1, question 10, and the related file area descriptions in the File Path Definitions section. Each screen line here should contain (from left to right) a number representing a security level (using the same numbers as the previous screen); the file areas to which each level will be granted upload privileges; the maximum number of files that may be downloaded per day; the maximum number of Kbytes that may be downloaded per day; and the required ratio of downloads to uploads.

### Upload File Area Access

In the previous screen you specified the file areas from which each security level may download files. You may elect to allow callers the ability to place uploaded files in all these areas, or may instead limit uploads to only a few areas. The ability to route uploads to a particular area is a powerful feature that could save the system operator a considerable amount of maintenance time if properly implemented. Some

system operators may prefer to place all uploaded files in an area of their choosing rather than allowing the uploader to possibly select an improper area. Others may want to test all uploads prior to making them available for downloading by other users. This is very easy!

Assign a particular area as UPLOADS (or other wording); force all users to upload to that area only; and do not permit downloading from that area regardless of user level.

The Sysop can then make use of the file database [M]atch function to quickly review only the files in the upload area and move the files to the correct areas after his review.

Again, make use of the F2 key to refresh your memory as to the file area letter assignments and definitions if needed.

### **#DLs & DL Kbytes**

The second part of this screen addresses the controls associated with downloads by each security level. The Sysop may specify a maximum number of downloads permitted per day, the maximum Kbyte count allowed, and the ratio of downloads to uploads. If a value of 5 is entered in the # DLs column, a caller at that level will be permitted to complete five downloads during a day, but will be prohibited from requesting a sixth. Likewise, if a value of 10 is entered in the DL Kbytes column, a caller will be allowed to proceed with a download request as long as the size of the current file request, when added to his current daily download Kbyte count, does not exceed 10K. Keep in mind that downloads will be disallowed as soon as a user reaches EITHER of these maximums. The final column controls the ratio of downloads to uploads for each security level. For example, if a ratio is set to "20", a caller could download 20 files without uploading any. Starting with download file number 21, the user will be advised that he has exceeded his download to upload ratio. This ratio reminder may be customized in the file RATIO.BBS but does NOT prevent further downloads automatically. Based on your answer to question 8 in General Information - Part 2, you may even prohibit additional downloads when the ratio is exceeded.



07-27-89	Security Information	11:31:32
<ul style="list-style-type: none"><li>1. Minimum security level to overwrite files on uploads : 1000</li><li>2. Allow original uploader to overwrite file : Y</li><li>3. Minimum security to read SYSOP (and PRIVATE) mail : 1000</li><li>4. Security level for MASTER Sysop : 1000</li><li>5. Minimum security for external protocols : 5</li><li>6. Number of attempts for logon security questions : 3</li><li>7. Lockout user name on logon security failure : N</li><li>8. Echo the user's password on the screen : N</li><li>9. Display password protected files in the file listing : N</li></ul>		
Which security level is needed to overwrite an existing file		
F1 for HELP - [?] select question - [PgUp/PgDn] select page - [Esc] to exit		

## Security Information

### 1. Minimum security level to overwrite on uploads : 1000

Any user who has a security equal to or greater than the value entered is permitted to overwrite an existing filename during an upload. This option is beneficial for systems in which a number of callers may be periodically uploading a revised version of a file. You may press the F2 key for a list of your defined security levels.

### 2. Allow original uploader to overwrite file : Y

This prompt allows the sysop to specify whether users may overwrite files uploaded by them personally at a previous time regardless of security level. Since some sysops want to have complete control over the contents of files available on their system, this overwrite access for a user's own files may present a problem. If your system needs to prevent a user's new uploads from being publicly available prior to review you can still allow original user overwriting. Simply force all uploads

to a single area which is not available for downloading. If a user overwrites one of his own uploads in a public area, the new upload will then be placed in the private area for review prior to being made available.

When a user without overwrite access attempts to upload a file that already exists, he is advised that the file already exists and is instructed to select a different name. If overwrite access is allowed, the caller is advised that he has overwrite access and is asked if he would like to overwrite the existing file. In the case of batch uploads where the file names being sent are not available prior to the upload beginning, all duplicate filenames are automatically renamed to the same filename with the extension .001, .002, and so on for additional duplicates. In the case of batch uploads by a user with overwrite access the files are automatically overwritten without confirmation.

### **3. Minimum security to read sysop (and private) mail : 1000**

Normally, only the system operator should have a security level high enough to read sysop and private mail.

### **4. Security level for MASTER sysop : 1000**

Many system operators make use of more than one sysop to help maintain files, messages, and users. With this possibility in mind you are able to set aside one security level as MASTER sysop who has full system control. The specific area in which control is limited for sysops at other levels is the [U]ser database function within the sysop menu. Even if a co-sysop has access to this area, he will not have the ability to see other users passwords or to add other users at the MASTER level. An example is a MASTER sysop level of 1000 and co-sysop at 900. When the sysop at level 900 views the [U]ser database, the passwords will display as a series of asterisks. Do keep in mind that users passwords may be changed by the non-master sysop, but a non-master sysop cannot log in as the user, or compromise his password without changing it.

**5. Minimum security for external protocols : 5**

This option allows the sysop to restrict external file transfer protocols to callers at or above the security level entered.

**6. Number of attempts for logon security questions : 3**

This number indicates how many tries a caller will be given to enter a correct password, birthdate, or phone number. Values from 1-10 are allowed.

**7. Lockout user name on security failures : N**

If toggled to "Y", a user will be locked out of the system upon failure to properly answer questions regarding password, birthdate, and phone number within the number of attempts allowed. This lockout is also invoked if a user hangs up at a verification prompt after entering his name. Keep in mind that the lockout will occur due to loss of carrier for any reason at a security prompt since a hangup during verification is an unacceptable action if this option is implemented. The caller is afforded an opportunity to enter a message of explanation prior to disconnect. If this feature is implemented the sysop should disable the main menu command [U]serlog list to prevent prank callers from intentionally locking out others by using their name and failing the password prompt.

This option is needed only by systems offering the most sensitive data, and perhaps limited access. It is an extreme method of ensuring system security, implemented without regard for user convenience or sysop maintenance.

**8. Echo the user's password on the screen : N**

The default answer here is "N", indicating that as a caller types his password, it is displayed as dots on the host system screen. Some installations in a busy office setting may require this additional security while a home BBS may not. A "Y" response displays the caller's password as it is typed.

### **9. Display password protected files in the file listing : N**

*WILDCAT!* has the ability to require a password to download a file, and the sysop determines whether these files are listed along with the non-protected files or are hidden from view. If the "N" option is selected, users will not know of the existence of password protected files unless advised by a message or some other means.

08-02-89	Newuser Defaults	17:21:46
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1. New users default security level : 5
2. Ask for their phone number : Y
3. Verify telephone number after every 30 logons
4. Ask for their birthdate : Y
5. Verify birthdate after every 15 logons.
6. Log user off for invalid birthdate or phone number : N
7. Ask for their computer type : Y
8. Force newuser to fill out the questionnaire : Y
9. Time limit (in minutes) for first call : 30
10. Number of lines per page : 23
11. Place them into these message folders : ABCDZ
12. Prompt users for ansi : Y

Which security level should be given to new callers
---

F1 for HELP - [↑↓] select question - [PgUp/PgDn] select page - [Esc] to exit
--

## New User Defaults

### 1. New users default security level : 5

You have already indicated how many security levels you will be offering and the numbers used to refer to each level. The number entered here will establish the level of security access every new, unknown caller has on your system. Use the F2 key to display your defined levels for selection if needed.

*Phone and birthdate will display in the sysop status window if obtained at first logon*

### 2. Ask for their phone number : Y

By answering "Y" to this option, a new user is prompted to enter a phone number during their first logon to the system. Although the user is not allowed to ignore this prompt, a wrong number may be entered. The number entered here may also be used for periodic security checks.

### 3. Verify phone number after every 30 logons.

Verifying phone number every so often is simply an additional security device to determine whether the caller is really the

actual user. Following the number of logons specified, the caller is prompted to enter a phone number in addition to the usual first name, last name, and password. The phone number entered is then checked for validity against the user's record, and if the response is not the same as that contained in the database, action is taken. The system response may be forcing the caller to the comments section of the system to explain the discrepancy before continuing with the logon, or terminating the logon process. The action taken is determined by your answer to question 6 on this screen.

#### **4. Ask for their birth date : Y**

If implemented this option will allow for periodic security updates, just like the prompt for phone number verification. In addition, *WILDCAT!* will convert the user's birth date to his or her actual age today when the user record is inspected. This confidential information is stored in the user database, and is only available to the system operator. Many operators like to gather statistical data from information of this nature, "What is the median age of my users?"; "Who is the youngest and oldest user?". How about a surprise birthday greeting to the user? Or perhaps most important, allowing the user age information to serve as a guide to what files are maintained on the system, and establishing the "tone" and contents of your bulletins and editorials. *WILDCAT!* is hard-coded to prohibit a user from entering values which (when converted to age) mean that the user is less than six, or over ninety years old.

#### **5. Verify birth date after every 5 logons.**

The rationale of verifying a caller's birth date is the same as that in #3 above. Although the values entered could be the same in both verification requests, it might be more effective if the values were staggered to present the illusion of a "random" pattern. Like the phone number verification, birthdate verification failures may result in a forced comment or a declined login process. When these security options are combined, the chances of an "illegal" user knowing a regular user's first name, last name, telephone number, and date of birth become increasingly unlikely.

#### **6. Log user off for invalid birthdate or phone number : N**

In the event a caller fails to properly validate either phone number or birthdate *WILDCAT!* can either allow the logon process to continue with a message of explanation, or can abort the logon process as if an invalid password was entered. The default response of "N" simply forces the caller to the comments area for an message of explanation. Entering "Y" will result in a declined logon and the caller will be disconnected.

#### **7. Ask for their computer type : Y**

If implemented, users are presented a blank line on which to briefly describe their computer name and type. It may come as a surprise to realize how many different types of computers are being used. Further, it assists the system operator in helping the user in the event of any compatibility problems while on the board. Finally, this information is presented alongside the user name in both the [L]ist users and [V]erify users options on the main menu.

#### **8. Force new users to fill out the questionnaire : Y**

The questionnaire for new users will be further discussed in a separate section of the manual, along with instructions on generating the questionnaire. This option is a toggle to determine whether a new user will be asked to complete a special questionnaire during their initial logon to the system. It may be used whether or not the system is run as a closed board. If toggled to "Y", every new caller will be presented with the new user questionnaire immediately after completing the basic logon information requests.

#### **9. Time limit (in minutes) for first call ? 30**

Some bulletin board systems do not differentiate between a first time caller and a "regular" caller. Others require that a new user be screened prior to receiving access to various areas of the *WILDCAT!* system, such as leaving messages and up/downloading files. If you elect to have a screening procedure there may be no real need to allow a new user the same

time limits as a regular caller. Since their privileges are limited, there will not be enough options available to the user to require a longer time limit.

Be realistic in the value entered here. Many first-time callers are apprehensive, or perhaps slow typists. If you have all the other first-time caller options implemented, plus a questionnaire, it's possible that a new user will never get to the main menu in the allotted time! The provided default value indicated above is reasonable in such a case, but be sure to test this value in your own application.

### 10. Number of lines per page : 23

*Callers with 40  
column displays  
can set length to  
11 for better  
operation*

The user is prompted during the initial logon to enter a value for the number of SCREEN lines per page. This value is used throughout the program to determine the appropriate position for automatic screen pauses. The value entered here is presented as the default value if the new user simply presses the ENTER key, and is correct for most PC users.

### 11. Place them into these message folders: ABCDZ

Question 1 on this screen determines the security level assigned to a new user, and that security level determines which message folders will be actually be accessible at the time of the first logon. To make learning the system easier for new callers you may automatically open folders for viewing by entering the folder letters here. You could also choose to auto-open additional message folders, including some to which new users are denied access until upgraded to a higher security level. This causes no problems since the user's security level will be the final determinant of which folders a user may actually view, regardless of whether they have been auto-opened. The values entered should typically include any folder that is available for general use by your "regular" users. The "Z" folder (comments) is included as a default here to guarantee that the sysop may leave replies to comments in folder "Z", and that all users may read the sysop replies.



The general rules governing message folders are that a user may leave a message or read public messages in any folder to which he has security access and has open. Users will be advised of pending personal mail in any folder, but cannot use the [R]ead command unless they have security access and it has been OPENED. The special folder "Z" is no exception to the above guidelines. The wastebasket (folder "Y") is never checked for personal mail. Personal messages placed in a folder to which a user has no access may not be read except via the [R]ead [M]arked mail command. It is therefore advisable to give all users access to the "Z" folder as a minimum.

## **12. Prompt users for ANSI : N**

If you have made color ANSI menus available, your answer to this prompt determines how new callers go about activating these menus. Answering "Y" will result in all new callers being asked if they want color ANSI menus during the user setup procedure on the first call to the system. A no response will result in new callers receiving a notice that ANSI color is available, but requires that they turn it on manually from the main menu.

In systems where new callers may not have their software properly set up to interpret the ANSI codes, the "N" response will prevent new callers from requesting color and discovering that they are unable to read the screen displays, and further do not know how to change back to non-color menus. If these same callers must first learn how to turn color ANSI on, they will have also learned how to turn it off again if not setup properly. In contrast, if your user base consists of sophisticated callers, you can elect to allow them to turn color on during the user setup on the first call to the system.



07-27-89		Main Menu Definition		11:31:52	
Activity	Call Ltr	Description	Seq	Sec	
Call message menu	M	[M].....Message Menu	1	5	
Call file menu	F	[F].....Files Menu	2	5	
Comment to sysop	C	[C]...Comments to the Sysop	3	1	
Call bulletin menu	B	[B].....Bulletin Menu	4	5	
Page the sysop	P	[P].....Page the Sysop	5	5	
Show welcome scrn	I	[I]...Initial Welcome Screen	6	5	
Call questionnaire	Q	[Q].....Questionnaire	7	5	
Seek active user	U	[U].....Verify a User	8	5	
Change user setting	Y	[Y].....Your Settings	9	5	
Board information	S	[S].....System Statistics	10	5	
List user log	U	[U].....Userlog List	11	5	
Door menu	D	[D].....Doors	12	1000	
Call newsletter	N	[N].....Newsletter	13	5	
( 1 for more )					
The CALL LETTER is the key to be pressed to activate a function					
F1 for HELP - [↑] select question - [PgUp/PgDn] select page - [Esc] to exit					

## MAIN MENU DEFINITION

This screen lists the menu choices for the main menu. Since there are more than 13 possible choices, a scrolling screen window is used for all menu displays. You will notice a small down arrow and prompt on the lower right border, indicating more choices are available. You may view these additional choices by pressing Ctrl PgDn, or by pressing the down arrow while on the bottom line. An up arrow may also appear if there are additional choices above the top line that have scrolled off the screen.

*WILDCAT!* will permit a lot of flexibility in its run-time configuration. This includes the menu structure which may be completely customized. In this screen you will specify the names of the various menu choices as well as the keypresses used to activate those choices. Along with this power and flexibility comes an area for possible confusion, so the screen above will be elaborated upon in the following paragraphs. The five main screen sections represent the following:

### Activity

This text field describes the actual function of the menu choice within the program. Each describes what is actually happening inside the code during the procedure that is listed, and they are never seen except when running MAKEWILD. They are listed here for your information so that you may decide the menu name and description that you will give to that specific menu function. Further details of each function are contained in the section “*WILDCAT!* in Action” later in the manual. Look ahead to that section if the brief “activity” description given here does not adequately explain what the menu choice actually “does”.

### Call Letter

The call letter for a particular option is definable. It represents the key a user must press on the keyboard to activate that menu choice. The call letter may be any ASCII character that your normal keys will produce. In addition, the Call Letter does NOT have to agree with the first letter in the description.

*Be sure not  
to duplicate  
letters*

For example, you might elect to change the call letter for [I]nitial Welcome Screen from “I” to “W” and then change the related description to Initial [W]elcome Screen, or just [W]elcome Screen.

These call letters are active for dynamic menus and both .BBS and color .SCR menus. Your text menu files must agree with the call letters entered here.

### Description

The description is what you elect to call the activity on the dynamic menus as they are displayed to the screen. For example, you are free to change the [N]ewsletter call letter to “S” and redefine the associated description to “[S]ystem News” or “News on system”. However, notice that there now exists a conflict with two “S” call letter options, the other still being used for [S]ystem Statistics. MAKEWILD will double-check for potential conflicts in this area but you are cautioned to work out your call letters and descriptions properly. The use

of brackets is optional in the description line, but for clarity, you are encouraged to use some means of highlighting the user's screen options.

Again, these descriptions will only be used for the dynamic menus generated by *WILDCAT!*. If you are not making use of dynamic menus, you will need to enter the descriptions in your MAIN#.BBS or MAIN#.SCR files. Even if dynamic menus are disabled, having the correct descriptions here is recommended since the dynamic menus are used if a text menu file cannot be located for some reason.

*Fill out the menu text descriptions accurately since they are the basis for DYNAMIC menus, and are displayed if a text menu is not found*

## **Seq (Sequence)**

This option determines (1) the order in which the Description is presented on the dynamic menu screen when the dynamic menus are being used, and (2) the sequence of characters on the command line. Notice on the sample screen that the [M]essage Folder Area and [F]ile Sections are numbers 1 and 2, respectively. Users will use these options more often than the others indicated. For this reason, they have been given these sequences. You may change them to any sequence you wish, but be careful that no two commands have the same sequence number.

## **Sec (Security)**

Enter the minimum security level required to access each menu option in this field. All users with that level or above will be able to perform the menu function. If dynamic menus are being used, callers will only be shown the choices to which they have access by security level. In the screen above, if the security level for the [N]ewsletter option were raised to a value of 10, a user with a security of 5 would not only not be able to access the newsletter, he would not even see the option on his menu.

If dynamic menus are not implemented or color ANSI menus are being used, the sysop must use the access rights in this frame to create the various MAIN#.BBS & .SCR files, containing the correct menu choices for each security level.

## Main Menu Definition

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**Caution:** Regardless of the actual call letter and description given, be especially careful with the security level of the "Call Sysop Menu" activity. This function should be reserved for system operators only.

07-27-89		Message Menu Definition		11:32:11	
Activity	Call Ltr	Description	Seq	Sec	
Call the main menu	Q	[Q]...Quit to the Main Menu	1	5	
Select folder	U	[U]...Update Folders For Mail	2	5	
Read messages	R	[R].....Read Messages	3	5	
Scan messages	S	[S].....Scan Messages	4	5	
Enter messages	E	[E].....Enter a Message	5	5	
Delete a message	D	[D].....Delete a Message	6	5	
Search messages	T	[T].....Text Search	7	5	
Check mail box	C	[C].....Check Personal Mail	8	5	
Goodbye & logoff	G	[G].....Goodbye & Log-Off	9	5	
Help level	H	[H].....Help Level	10	5	
Call help file	?	[?].....Command Help	11	5	
Call file menu	F	[F].....FILE SECTION	12	5	
Call errlevel 35	N	[N].....Net Mail	13	1000	
The CALL LETTER is the key to be pressed to activate a function					
F1 for HELP - [F1] select question - [PgUp/PgDn] select page - [Esc] to exit					

## MESSAGE MENU DEFINITION

The screen above is used to define the options available when a user chooses the [M]essage menu choice from the main menu. The editing options that exist here are the same as the main menu in the previous screen. This screen may also scroll within the editing window.

**Note:** Since this a separate menu, duplication of the main menu Call Letters are permitted. Let's use the first option as an example, just to further illustrate the menu options.

Before:

**Call The Main Menu Q [Q]uit to the Main Menu 1 5**

After:

**Call The Main Menu M Return to [M]ain Menu 2 10**

Notice what has happened. The keypress letter that returns the user to the main menu has been changed from "Q" to "M",

and the brackets prompting for the option in the description have been edited. In addition, the location on both the message menu screen and command line will be repositioned.

Finally, we've also created a problem! If this caller happens to be a new user with only a security level of "5", we have just permitted that user INTO the message area, but prohibited any means of exiting back to the main menu. The user's only options now, other than re-reading the messages over and over, is to either hang up, thus breaking the modem connection, or to log-off the system via the [G]oodbye option.

Using the power of the security levels in this manner can be very useful if used wisely. The last part of this example reflects no such wisdom, however. All you've accomplished is to "paint the user into a corner". This is not the best way of encouraging new users to call your system! Be careful!



07-27-89

File Menu Definition

11:32:38

Activity	Call Ltr	Description	Seq	Sec
Call the main menu	Q	[Q].....Quit to Main Menu	1	5
Info on a file	I	[I]....Information on a file	2	5
List avail. files	L	[L]....List available files	3	5
Call download proc.	D	[D].....Download a File(s)	4	5
Call upload proc.	U	[U].....Upload File(s)	5	5
New file search	N	[N].....New Files since [N]	6	5
Text search in fil	T	[T].....Text Search	7	5
Drive status	S	[S]....Stats on Up/Downloads	8	5
Call help transfer	F	[F].....File Transfer Info	9	5
Goodbye & logoff	G	[G].....Goodbye & Log Off	10	5
Help level	H	[H].....Help Level	11	5
Call help file	?	[?].....Command Help	12	5
Call message menu	M	[M].....Message Section	13	5

(↓ for more)

The CALL LETTER is the key to be pressed to activate a function

F1 for HELP - [↑↓] select question - [PgUp/PgDn] select page - [Esc] to exit

## FILE MENU DEFINITION

By now you should be comfortable with the functions of the Activity, Call Letter, Description, Sequence Numbers, and Minimum Security parameters. If not, refer back to the main menu definition screen for a review. Meanwhile, let's explore another area of *WILDCAT*'s power by using this frame for another example.

Suppose you are assigning a new user a default security level of "5". Further suppose you wanted your system to be "friendly" enough to allow the new user access to all options in the FILES area, except the ability to actually up and download files until such time the user is validated and upgraded by the system operator. What changes to the example frame above would be required?

Simply change the security levels for the "D" and "U" options to a value higher than 5. Of course, the [F]iles section in the Main Menu Definitions should be set to "5" to allow the user access to this menu in the first place.



07-27-89	Sysop Menu Definition			11:32:53
Activity	Call Ltr	Description	Seq	Sec
Call main menu	Q	[Q]....Quit to the Main Menu	1	1000
Drop to DOS	D	[D].....Remote Drop to Dos	2	1000
Print user file	P	[P]...Print the User Database	3	1000
List schd events	L	[L]....List Scheduled Events	4	1000
Create schd events	C	[C].....Create an Event	5	1000
Update schd events	E	[E].....Event Updates	6	1000
Modify user base	U	[U].....User Database Area	7	1000
Help level	H	[H].....Help Level	8	1000
Goodbye & logoff	G	[G].....Goodbye & Log Off	9	1000
List activity log	A	[A].....Activity Log Listing	10	1000
Del activity log	K	[K].....Kill Activity Log	11	1000
Edit the file D.B.	F	[F].....File Database Area	12	1000
Database status	S	[S].....Status of Databases	13	1000

( ↓ for more)

The CALL LETTER is the key to be preseed to activate a function

F1 for HELP - [↑↓] select question - [PgUp/PgDn] select page - [Esc] to exit

## SYSOP MENU DEFINITION

All of the editing options affecting other menus are applicable in the Sysop menu.

A caution was issued back in the main menu options to always set the [R]eports to sysop (or whatever description you've assigned to this option) to a value higher than any other security level. Notice that all the options in the Sysop menu have a security level of "1000". Regardless of whether other trustworthy users are granted "Co-sysop" access to the system, only the actual system operator should have absolute control over all parts of the system!



87-27-89	External Protocol Definition				11:34:25
----------	------------------------------	--	--	--	----------

Ltr	Name	Up .BAT	Down .BAT	Batch
Z	Zmodem	ZUP.BAT	ZDOWN.BAT	Y
K	Kermit	KERMIT5.BAT	KERMITR.BAT	Y

Enter the letter to be pressed to activate the protocol				
F1 for HELP - [?] select question - [PgUp/PgDn] select page - [Esc] to exit				

## EXTERNAL PROTOCOL DEFINITION

If you wish to define External Protocols you must select the number of protocols you want to support in General Information - Part 1, question 11.

Briefly, external protocols make use of batch files outside the *WILDCAT!* program to execute a transfer program written by another company. This section establishes the batch file names which are called for each protocol.

*Batch file transfer allows multiple downloads automatically*

### LTR (Letter)

The LTR refers to the keypress which will activate the file transfer for each choice. The obvious choices are phonetic such as K for Kermit, Z for Zmodem, etc. Letters which conflict with internal file transfer choices are not allowed to be entered.

### Up.BAT & Dn.BAT

These two fields should be filled out with the names of the batch files used for Uploads and Downloads. The Up.BAT

filename will be executed whenever a user asks to UPLOAD to your system, and the Dn.BAT will be executed when a download is requested.

### Batch

The batch choice relates to the ability of the protocol to transfer multiple files with one request. If the protocol has this ability this field must be set to Y to enable multiple transfers. This is an advanced feature and is not a part of all externally written protocols. If set to yes, *WILDCAT!* will allow up to seven filenames to be entered for a single download request, providing the user's daily download count and Kbyte limit have not been exceeded.

If you are not quite ready to tackle the setup of external protocols, you may leave this section blank and still have access to *WILDCAT!*'s internal transfer protocols of XMODEM, YMODEM (batch), YMODEM-G (batch), 1K-XMODEM-G, XMODEM, ASCII, etc. For details on the setup and use of External Protocols see the "[Advanced Features](#)" section.

07-27-89

Node Information

11:34:50

1. Path for menu files : C:\WILDCAT\MENU\
2. Path for help files : C:\WILDCAT\HELP\
3. Path for display files : C:\WILDCAT\DISPLAY\
4. Path for external protocols : C:\WILDCAT\EP\
5. Path for bulletins : C:\WILDCAT\BULL\
6. Path for questionnaire : C:\WILDCAT\QUESTION\
7. Path for doors : C:\WILDCAT\DOOR\
8. Path for message database : C:\WILDCAT\DATAFILE\
9. Path for file database : C:\WILDCAT\DATAFILE\
10. Path for user database : C:\WILDCAT\DATAFILE\
11. Path for master file : C:\WILDCAT\MASTER\
12. Node ID : 1
13. Security to access node : 5
14. Overwrite chat file : N
15. Network type : Single line

Enter the full DOS path where the menus are located

F1 for HELP - [↑] select question - [PgUp/PgDn] select page - [Esc] to exit

## NODE INFORMATION

This screen is used to set up the various path definitions and identification information for each line/node on your system. If you are operating a single line (single node) system, the setup is still needed to establish the location of various files needed by *WILDCAT!*. Multi-line (multi-node) configurations should first be set up as a single line/node and then expand to multi-line following the instructions later in this manual.

Like the path settings for file area assignments, the fields below must all end with a backslash (\) character, unless they consist of a drive designator only. *MAKEWILD* will automatically add the backslash or remove it, as needed.

### 1. Path for menu files : C:\WILDCAT\MENU\

This path should reflect the location of all menu files used by the program. It may be the same location as your *WILDCAT!* home path (the location of the program files), but may be

different simply for organizational purposes. The files to be placed in this area include:

MAIN0.BBS (.SCR) through MAIN9.BBS (.SCR)  
MSG0.BBS (.SCR) through MSG9.BBS (.SCR)  
FILE0.BBS (.SCR) through FILE9.BBS (.SCR)  
SYSOP0.BBS (.SCR) through SYSOP9.BBS (.SCR)

Depending on your configuration, there could be up to 40 menu files in this area. The .SCR designator indicates that both .BBS & .SCR files should be placed in this area, if used.

### **2. Path for help files : C:\WILDCAT\HELP\**

This path may also be the same as your home path if desired. If different, it should contain all files ending in .HLP. This will include the color ANSI versions as well as non-color files including:

MAIN0.HLP through MAIN9.HLP  
MAIN0C.HLP through MAIN9C.HLP  
MSG0.HLP through MSG9.HLP  
MSG0C.HLP through MSG9C.HLP  
FILE0.HLP through FILE9.HLP  
FILE0C.HLP through FILE9C.HLP  
SYSOP0.HLP through SYSOP9.HLP  
SYSOP0C.HLP through SYSOP9C.HLP  
CHATCMD.HLP and CHATCMD.C.HLP  
EDITMSG.HLP and EDITMSG.C.HLP  
PROTO.HLP and PROTOC.HLP

### **3. Path for display files : C:\WILDCAT\DISPLAY\**

This category includes all files which are displayed to the caller for informational purposes which are not included in other categories. Both non-color and color ANSI files should be included.

### **4. Path for external protocols : C:\WILDCAT\EP\**

This file path is made as short as possible to maximize the number of files able to be sent. Since the DOS command line length is normally limited to 128 characters, it is sometimes



impossible to pass all of the information required for 7 file transfers if this path exceeds 15 characters. When batch external transfers are requested, *WILDCAT!* must perform a shell (exec call) and pass the full protocol path + the name of your batch file + the com port # + the baud + seven filenames. Using maximum possible values here, the limit for the protocol path is about 15 characters. More information and details are contained in the section Advanced Features.

All files related to external file transfers should be placed in this area. These include the batch files specified in the previous screen, and the actual file transfer programs such as DSZ, PCKERMIT, etc. Although you could place the program files (like DSZ) in the *WILDCAT!* home directory and have DOS locate them with a path statement, having them here guarantees that they will be found by the batch files and makes it easy to check your system for missing files.

This path is not only used as the location where *WILDCAT!* looks for your protocol batch files, but is also the temporary holding location for all files sent and received via external protocols. For example, when a filename is requested for download using Zmodem, *WILDCAT!* places a duplicate copy of the file in this subdirectory for transfer. When the filename is passed to the batch file for sending by DSZ, no path to the main file location is included, and DSZ assumes the file is located in the current directory. After the transfer is completed, *WILDCAT!* will erase the temporary copy of the file from this area. This is done to avoid having to pass the entire path and filename for every file transfer requested, which would easily exceed the DOS command line length of 128 characters.

#### **5. Path for bulletins : C:\WILDCAT\BULLETIN\**

Place all files related to bulletins in this area, including:

BULLETIN.BBS (.SCR)  
BULL#.BBS (.SCR)

### 6. Path for questionnaires : C:\WILDCAT\QUESTION\

This area should contain the QUESTIONS to be asked in the questionnaires. The ANSWER files (with the extension .ANS) are automatically created in the directory where WILDCAT! was started. In a single line system this is the *WILDCAT!* home directory. The questionnaire files include:

QUESTION.BBS (.SCR)  
QUESNEW.BBS  
QUESCLOSE.BBS  
QUES#.BBS  
QDONENNEW.BBS (.SCR)  
QDONECLO.BBS (.SCR)  
QDONE#.BBS (.SCR)

### 7. Path for doors : C:\WILDCAT\DOOR\

This path will contain two files which control the doors on your system. The first is the door menu file DOORS.BBS and the color version (if implemented) DOORS.SCR. This file must be created by the sysop, and should identify the available doors by number. If it is not available, the caller will receive a message that "doors are not available today".

The second file in this area is created and modified by the *WILDCAT!* program. It is named DOOR.DAT, and keeps track of whether the door is in use or not at any given time. In a single line system this file is not actually checked, but will exist since it is created by MAKEWILD automatically. Do not attempt to remove or modify DOOR.DAT directly.

These two files are allowed to be placed in a separate directory in order for multi-line systems to offer different doors menus with different door programs to each line, if desired.

The rest of the files used for door operation reside in the startup directory, and are reviewed in detail in a later section [Advanced Features](#).

#### **8. Path for message database : C:\WILDCAT\DATAFILE\**

Enter a path indicating the location of the message database for this node. In a single user system this will be the only message database path, but it should still be kept in a location separate from other system files for clarity. In a multi-node system you may elect to have different message database paths for various nodes, or may have them all share a common message section.

#### **9. Path for file database : C:\WILDCAT\DATAFILE\**

Like the message database path, this area should be separate from the balance of the program files. In single user systems you should allow all databases (files, messages and users) to share a common path. In multi-node configurations you may specify different file database paths if nodes will offer separate file lists to users.

#### **10. Path for user database : C:\WILDCAT\DATAFILE\**

The user database should reflect the same path as the other databases in a single user system. Multi-node systems may make use of separate user lists for various nodes, if desired.

#### **11. Path for master file : C:\WILDCAT\MASTER\**

This path reflects the location of the shared files which are updated by *WILDCAT!* as the program is operating. It contains the following files which are updated regularly:

**MASTER.DAT** - In a single user environment this file is only used by the one node and contains basic status information and the call count. In multi-node configurations it contains the basic node status for each node (up or down), and the total number of calls received by the "system". The "system" consists of all nodes sharing this Master path, and the call count reflects a combined count of calls for all nodes. There may also be a MASTER.DIA file in this area if the database safety mode is set to full.

**NODEINFO.DAT** - In both single and multi-node systems this file contains full status information on each node. This in-

cludes the printer toggle, page bell, page override, screen writing, last caller, availability for chat, the call count for each node, and more.

In a multi-node system, this Master path also determines which nodes are connected together for multi-node chat, and which nodes comprise a "system", even if they do not share messages, files or users.

For example, the Public BBS at Mustang Software shares the same Master path as the Private BBS. This allows callers on the public BBS to see [W]ho is on other nodes on both the public and private systems. We have disabled the inter-node chat function for the public system, but they could be allowed to chat even though they do not share messages, files or users. The Public BBS does not share any database paths, but maintains a separate list of files, messages and users.

The following questions will not appear unless the multi-line release of *WILDCAT!* is in operation.

### 12. Node ID : 1

This number is always one in a single user system. In a multi-node system it may be any number up to the maximum of nodes allowed for the software version. In the ten line release, this number may range from 1-10, in the professional version it may be from 1-250. Node number assignments need not be sequential, but must remain within the allowable limits. For example, a 5 line system running the 10 line version may operate nodes 1,2,5,6, and 10, but not 1,2,5,6 and 11.

This number **MUST** be unique for EVERY separate node on a multi-line system. See the multi-line section for additional details.

### 13. Security to access node : 5

This value represents the minimum security level needed to connect to a specific node. It allows creating a multi-line system with a single published phone number with automatic line rollover or hunting, while reserving the second and third lines for callers with higher levels only. It may also be used

to limit access to a specific line for private activity, such as our beta test line. Even if the private phone number is released, only users with the beta team security level may connect.

Make certain that you do not establish security levels below this number unless you want to deny them access to this line of your BBS.

#### 14. Overwrite chat file : N

In a multi-line system the group and private chat feature operates by creating a disk file containing the text entered by the callers on the two lines engaged in chat. This file is then read by each node in chat whenever it is updated by the other node in chat. This is the only feasible method of sending the information to the proper locations in an orderly manner.

This option allows the sysop to specify whether the disk files are started "fresh" each time a chat is initiated, or if new chat sessions should be appended to the end of the current file. Appending rather than overwriting allows the sysop to view the contents of chat sessions which took place since the file was created using the VIEWCHAT.EXE utility. These file can rapidly grow to quite a large size and should be monitored for deletion just like the ACTIVITY.LOG.

The response to this question also controls the capture file used when the sysop answers a page or initiates **local** chat with the F7 key. The capture file PAGED.CAP is either appended to or overwritten, the same as the inter-node chat files.

If a single-line only release of WILDCAT! is being operated, this value defaults to append to the capture file since inter-node chat is not possible and this option is not used or seen onscreen.

#### 15. Network type : Single line

Use the spacebar to toggle your choice. The default choice "Single line" should be used for any BBS system with only one phone connection, regardless of the *WILDCAT!* release. Additional choices include DOS3.x SHARE for multi-line operation using the SHARE command, and several others.

## Node Information

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Multi-node systems should first establish a single line system prior to attempting to add additional nodes. See the multi-line section for additional information.

Do NOT set your system to DOS 3.x SHARE unless you are operating more than one connection.

07-27-89	Door Setup	11:36:03
Door #	Security Required	MultiUser
Netmail	1000	N
1	10	N
2	10	N

Enter the minimum security required to enter this door
F1 for HELP - [!] select question - [PgUp/PgDn] select page - [Esc] to exit

## Door Setup

This screen will reflect the number of doors you indicated would be offered in General Information - Part 1, question 12. In addition to the number of doors defined by the sysop, *WILDCAT!* automatically includes a door labeled "Netmail". This "door" actually represents the message menu command "Call errorlevel 35", which is commonly used to execute a netmail reading program. Since it functions exactly like a door, and requires the same type of monitoring and program interaction, it is included here for configuration. If you do not implement the Netmail option at this time, simply leave the settings at their default values.

As in previous screens, if the number of doors exceeds 13, the additional screen lines are available by scrolling the screen window using the cursor or Ctrl PgDn.

There are three fields to be completed for each door, including the Netmail option, as follows:

### Door #

This number reflects the number given to the door program in your DOORS.BBS (.SCR) display file. The Netmail door has no number assigned. The number for all other doors is needed to allow *WILDCAT!* to properly restrict access as desired. Be certain that your door menu display file DOORS.BBS (.SCR) agrees with the information entered on this screen.

### Security required

The sysop may specify a minimum security level to access each door offered. This check is performed when a user selects a door to open.

### MultiUser

This field does not even appear on the screen for the single line version of *WILDCAT!*, and this explanation may be skipped for users with that release. In the releases capable of multi-line operation this field allows the sysop to specify whether a door has multi-user capability. If this item is set to "Y" *WILDCAT!* performs no checking to see if a door is in use already when it is selected. It will allow more than one caller to enter a door at the same time. If set to "N" the program checks the status of each door prior to allowing entry to ensure that only one caller is in a door at any given time. In a system making use of only one line this question may be answered "Y" for all entries, since only one caller can possibly be connected. In this case no checking needs to be performed. In a multi-line environment it may be possible for two or more nodes to request access to the same door program at the same time, and *WILDCAT!* uses this field to know whether to allow both callers in at once.

If a door is marked NO multi-user, *WILDCAT!* will prevent more than one node entering the door at any one time. Additional requests for a door already in use result in a message indicating that the door is currently in use, and is not multi-user.



If this field is toggled to Yes, no usage checking is done by *WILDCAT!*, and it is assumed that the door program properly handles the file and record locking necessary for error free operation with two callers using it at the same time.

Note that the sysop may offer doors that are not multi-user and still indicate "Y" to the multi-user prompt. In this case the sysop must set up each node's batch files to access a different copy of the door program, perhaps in a different subdirectory. Although this will allow use of the same door by two or more nodes, the door "user" and "score" files, if any, will be maintained separately for each node. This type of setup might be appropriate for doors which do not track user or high score information.



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# INITIAL OPERATION AND FILE DEFINITION

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*"Man's mind stretched by a new idea never goes back to  
it's original dimensions."*

Oliver Wendell Holmes

## In this Chapter...

- After MAKEWILD  
What you need to know to start it up.
- Sysop's functions  
F-Keys, Alt keys and more.
- Filenames  
A complete listing of internal and external files
- ANSI color vs. plain display files  
How to add color  
How to customize your files

## After MAKEWILD...

---

You have completed the setup program and *WILDCAT!* is ready to run and take it's first call. You may very well find that some fine tuning is in order and you are encouraged to make changes to MAKEWILD as needed.

*WILDCAT!* should always be started with a batch file, such as the CAT.BAT example supplied with the program. There are also two command line switches that may be used when invoking *WILDCAT!*, /B and /CD. The /B switch is used to pass the baud rate of a call already in progress when operating a front-end program such as a mailer. See the NetMail portion of Advanced Features for details of the /B switch. The /CD switch must be added to *WILDCAT!*'s command line when operating a CD ROM drive. It is needed due to an error in the Microsoft MSCDX driver designed to allow standard DOS access to a CD ROM as a standard DOS device. The MSCDX driver is not able to properly handle a file open request in Full Share Mode which is required for true network applications. The driver does behave well when files are opened in Share - Read Only Mode, and the /CD switch forces this mode of operation. Microsoft is working to alter the driver and eliminate the problem.

Before you embark on your first connection, take a minute to logon locally as the SYSOP and check the system out. Press the F1 key which begins a local logon using the first and last names entered as the sysop in MAKEWILD. *WILDCAT!* will automatically enter your first and last names and then ask if you are a new user. It may seem unusual, but at this point in time you are a new user since your name isn't yet in the user database. Answer "Y" and continue to answer the prompts until you have reached the Main Menu.

**NOTE:** Your response to the password prompt is VERY IMPORTANT! Do not use the same password you use on other systems and DO NOT use simple names and phrases. In

particular, refrain from using names of your children, spouse, pets, initials, or any other words which are commonly known to be associated with you. Remember, this one word is the key to YOUR ENTIRE COMPUTER SYSTEM! The best passwords combine numbers, letters and punctuation, and consist of more than 7 characters, such as JM5S7@HP. If that's too much for you to handle, try 2 unrelated words of 4 or more characters separated by punctuation such as AUTO\$TIMBER.

Once your login is complete and you have reached the main menu IMMEDIATELY use the F9 key to upgrade your access level to that of the MASTER sysop. You may then continue with the system checkout or simply logoff and await your first call. If you intend to configure *WILDCAT!* as a closed system, you should now return to MAKEWILD and change it to indicate your preference. Remember, you may not set the program up as a closed system until AFTER you have logged on once and set your access to that of sysop! Due to the number of configurable parameters within *WILDCAT!* and MAKEWILD, we encourage new sysops to check out each available menu choice for each security level. The easiest method of performing such a checkout is to use the ALT-L command to logon locally under an assumed name such as TEST USER. Check each menu carefully. Once you have determined that the new user security level is set up properly, use the F9 key to change to the next highest level you have assigned. Again, review each menu choice at this new level for oversights or omissions. Repeat this upgrade and test procedure for every security level available on your system. Remember to delete TEST USER after testing is completed.

Now is a good time to mention that the SPACEBAR may be used by the caller or the local sysop to stop the screen output of any *WILDCAT!* display file or menu, even the dynamic menus. Just keep it in mind.

Your BBS is now operational, and will begin counting the number of calls received. If this is a replacement system, you can easily set the call counter to the correct number using the WCREPAIR program. Complete instructions are included in the "*WILDCAT!* Support Programs" section of the manual.

## Local Keyboard Control Keys

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**F1 System operator local logon.** This key is used for logging onto the system from the local console, and automatically enters the SYSOP's name as defined in MAKEWILD. Use of this key will cause WILDCAT! to skip the HELLO screens and continue to the Bulletin menu prompt. The resulting logon is otherwise identical to use of either ALT-L or a remote access.

*You may also press F1 when a user is online to guarantee the Sysop will be the next to logon*

**Note:** The first time this function is used after system startup, the SYSOP is considered a new user since the name has not yet been entered into the user database.

**F2 DOS next.** This key is used while a caller is connected and the sysop wants to terminate the BBS after the caller logs off.

A flag indicator appears on the status line at the bottom of the screen, and remains until the caller says goodbye. At that time the BBS stops running and returns to DOS, placing a busy signal on the line if previously instructed to do so in MAKEWILD. As the system is returned to DOS a distinctive series of beeps is played on the computer speaker to advise the sysop that the BBS is now down..

**F3 Printer on/off toggle.** When toggled on, the printer will track the user's movements and activities while on the system. This same information is also recorded automatically in a file called ACTIVITY.LOG whether the print function is on or off. The program automatically checks printer status and if unavailable will toggle the F3 key off.

**F4 Page hour override on/off toggle.** When ON, the SYSOP is indicating that he will accept pages from on-line users even if the current time is outside of his paging hours as set in MAKEWILD. When OFF, the page function either pages the sysop or informs the user that the sysop is not available, in accordance with his paging hours.

**F5 Page bell on/off toggle.** When the Page Bell key is ON, the system will page by beeping using the local system's speaker.

If toggled OFF, the speaker is silent and a screen display of the page request is the only notice given to the local system.

- F6 Screen writing on/off toggle.** If screen writing is toggled off, the local monitor does not echo the connection activities. A screen notice indicates who is online along with a brief description of their activity at the moment. We strongly recommend that screen writing be turned OFF when there is no need to monitor a caller's activity, especially on slower PC/XT systems.

Processor resources needed to constantly update the screen can cause significant reduction of throughput to your callers. This toggle is especially useful when running *WILDCAT!* under a multi-tasking environment such as DESQView, where processor use is of utmost importance.

- F7 Start local chat with user or answer page.** Used to begin a local chat session with the online caller, or to answer a page from the caller.

- F8 End local chat or page.** Used to end local chat, regardless of whether it was started from a page or initiated by the sysop with F7.

- F9 Online user upgrade.** When F9 is pressed while a user is connected to the system, the local screen displays a listing of defined security levels. The local operator is prompted to enter a new security level for the caller, which goes into effect immediately and becomes permanent. One of the first things a new system operator must do after logging on the first time is to use F9 to set his security level to that of the MASTER sysop as defined in MAKEWILD.

- F10 Terminate WILDCAT!** This function may be considered the "off" or "exit" switch. It is active only during standby mode, not when a user is currently online. Just in case the key may have been pressed accidentally, a prompt is presented to double-check whether you really wish to quit *WILDCAT!*. Use of F10 to exit *WILDCAT!* sets the errorlevel to 0, enabling batch file branching. See the section on batch files in Advanced Features for additional information.



The following files, ALT-1 through ALT-0 are simple ASCII text files created by the sysop, if desired. The contents of each file is displayed both locally and to the caller when the corresponding ALT key command is invoked.

**ALT-1** Posts message ALT1.BBS to user; logs user off.

**ALT-2** Posts message ALT2.BBS to user; logs user off.

**ALT-3** Posts message ALT3.BBS to user; logs user off.

**ALT-4** Posts message ALT4.BBS to user; logs user off.

*ALT 1-4 may be used to inform a user you need the system and log them off while ALT 5-9 simply sends them a message*

The user log-off resulting from issuing ALT-1 through 4 is temporary. The user may call back immediately providing the system is available. One of these four keys might be used to send a message to a caller indicating that he is being logged off automatically to allow you to perform some unscheduled maintenance that can't wait.

**ALT-5** Posts message ALT5.BBS to user.

**ALT-6** Posts message ALT6.BBS to user.

**ALT-7** Posts message ALT7.BBS to user.

**ALT-8** Posts message ALT8.BBS to user.

**ALT-9** Posts message ALT9.BBS to user.

The use of ALT 5 through 9 does not cause the user to be logged off.

*ALT 0 for those problem callers*

One of these messages might be used to inform a caller that his time available was being reduced to 15 minutes to enable you to perform some maintenance. Another use would be as a "standard response" to be placed inside a message as you were entering it.

**ALT-0 (zero)** Posts message ALT0.BBS to user, logs the user off, and locks the user name out of system for any future calls.

**Caution:** The status caused by the use of ALT-0 is permanent! The locked out condition may only be reversed manually by the system operator by editing the user's record.

**ALT - (minus)** Logs user off immediately with no notice and no explanation.

*The only correct way to return to WILDCAT! from remote drop to DOS is with the EXIT command!*

**ALT-D Drop to DOS** (shell or exec call). This selection may be used while *WILDCAT!* is waiting for calls or while a caller is online. It attempts to leave *WILDCAT!* suspended in memory while invoking a second copy of the DOS Command processor (usually COMMAND.COM). If executed while waiting for calls, no calls can be answered while in the DOS shell, and if a caller was online that caller can do nothing but wait for your return. In order to operate properly the system must have enough memory to support both *WILDCAT!* and the second DOS shell. If there is insufficient memory for the shell to be invoked, *WILDCAT!* will inform the local operator and ignore the command. The MAKEWILD option regarding swapping *WILDCAT!* to EMS or disk can overcome this memory problem. Once successfully enabled, the screen is cleared and the normal DOS prompt appears. Most DOS commands and programs operate properly, but remember that memory may now be significantly limited. MAKEWILD may be run from a DOS shell, but the changes will not take effect until *WILDCAT!* is re-started. After you have finished with your DOS session, type EXIT to return to *WILDCAT!* The DOS prompt is altered during the shell to remind you to type EXIT to return. You may type EXIT from any subdirectory on your *WILDCAT!* drive since the home path is automatically restored by the program. Be careful not to re-start *WILDCAT!* with CAT.BAT since it will load a second copy of the program when there is already one in memory!!!

**ALT-K** Toggles keyboard on/off. When toggled ON, the sysop has the ability to enter keystrokes from the local console which are accepted by *WILDCAT!* as if they were entered by the caller. The default is OFF. This toggle is automatically set to ON when a local page is answered and when logging in locally with F1 or ALT-L.

**ALT-L** Local logon. Similar to F1, this function is used for testing purposes or to allow local users other than the sysop access to the system. It allows the system operator to logon under any user name, along with the ability to see and test the “top end” procedures, such as the questionnaire, bulletins, and other information that a new or remote user would normally see, but which are by-passed when using the F1 function.

**ALT-W** Full screen/status line toggle . Toggles window between full screen (user view) and having user status lines displayed at bottom of screen. Remember that whenever you make use of the two user status lines, your local screen will “lose” the top two lines of text that the connected user still has on his screen.

**HOME** Display help menu. This key displays an abbreviated help menu explaining the various function keys. It may be used at any time, whether the system is waiting for calls or a user is online. If used while a user is active on the system, however, the user’s screen will be frozen until the system operator toggles the help screen off again with ESC.

**Up Arrow** Increases user time online by five minutes, updating the display in the user status box (if enabled).

**Dn Arrow** Decreases user time online by five minutes.

**Note:** The update of the user’s time remaining in the status window may not appear immediately, depending on the users actions when the time is altered.



## Internal Files Used By Wildcat!

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The following files are automatically generated and updated by the program. No intervention is required by the system operator. An additional listing of all WILDCAT! files, both internal and display, are included in an appendix.

*Internal files do  
not require any  
Sysop  
intervention*

### ACTIVITY.LOG

The activity log file contains information which traces the user's movement while online and notifies the sysop of operational errors that may need attention. It is automatically created by the program if it does not exist. This file should be checked periodically as an indicator of the usage patterns of the system. The activity log is also the basis for statistical compilation by call reporting programs such as S-PRO!.

**Caution:** Options are available in the system operator's reports menu for both reading and deleting this file. Do not delete the activity log while outside the code, but do check the file periodically as it can grow quite large!

### CALLINFO.BBS

This file is a plain ASCII text file which is created ONLY when a caller executes a DOOR program. It contains virtually all information about the user, as well as his time on the system, and is used to pass user-specific data to the door. It is created as the caller enters the door, and is not usually visible on your system disk. When the user returns from the door, WILDCAT! erases this file. See the section on doors for more specific details of door operation.

### CHAT.###

Chat files are used to record the text of the conversation between two callers while in chat between nodes. The ### represents the node number of the caller who initiated this private chat. This file is always located in the MASTER path

for each node since only nodes sharing a common MASTER path can enter chat together. This file may be read using the utility program VIEWCHAT.EXE which is included with *WILDCAT!*.

### **CHAT.GRP**

The group chat file records the conversations of those entering group chat. It too is located in the MASTER path, and may be overwritten or appended as specified in MAKEWILD. This chat file may also be read with the VIEWCHAT.EXE utility.

### **CONFIGWC.BBS**

This file contains all the run-time information required to initialize your particular custom configuration of *WILDCAT!*. It is created, viewed and modified automatically by MAKEWILD and *WILDCAT!*. CONFIGWC.BBS contains all the MAKEWILD settings and is modified whenever these parameters are changed.

### **DOOR.DAT**

This file tracks the status of each door on the system, and prevents multiple access unless a door is tagged as multi-user. It is created by MAKEWILD in the path for doors.

### **ERROR.LOG**

The ERROR.LOG is automatically created by *WILDCAT!* the first time any errors are encountered. If it exists it will contain information about the error. Errors are of two basic types, SYSTEM CRASH or NON-FATAL ERRORS. A system crash indicates that *WILDCAT!* was unable to recover from the error, and exited with an errorlevel of 1 to be restarted with CAT.BAT. Every crash indicates when it happened, a description of the problem, and often makes a suggestion of a repair procedure. Non-fatal errors do not cause *WILDCAT!* to stop operating, but reflect some problem that may need attention. Explanations are given when possible. The contents of this file may prove helpful to Mustang Software in evaluating the cause of the problem.

**FILESPEC.DAT (.IX & .DIA)**

These file make up the file database. The .DAT is the data file, .IX is the index file, and .DIA is the dialog file which only exists if the full database safety mode is in use.

**MASTER.DAT**

The master configuration file is located in the MASTER path and contains the total number of calls for the “system” (all nodes combined) and whether each node is “up” or “down”.

**MESSAGE.DAT**

This file is located in the MESSAGE path of each system and contains the low, high, and active message counts for the use of all nodes accessing that message database.

**MSGFILE.DAT (.IX & .DIA)**

These file make up the message database. The .DAT is the data file, .IX is the index file, and .DIA is the dialog file which only exists if the full database safety mode is in use.

**NODEINFO.DAT**

This configuration file contains a group of records reflecting the full status of each node on the “system” (those sharing the same MASTER path). It records the last caller, individual call count, status of Page, Bell, Printer, Screen writing, etc.. It is maintained entirely by the system, and is the key to operation of the TSR program CATEYE which modifies this file to control node activity.

**SCHED.BBS**

SCHED is the abbreviation for schedule. This file is created and updated from inside the code. It contains the control elements for determining which event will take place and when. This file is located in the startup directory (where the node is started and the MAKEWILD settings reside). Events are more fully explained in the section on Creating Events.





## Display Files Used by Wildcat!

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Each of the following files may be generated by any word processor capable of creating ASCII files. Although samples of most are supplied with the program, they must be edited by the system operator if they are to be used on the system.

*Display files need to be created by the Sysop; many are optional*

All of the display files are highly customizable and may contain special characters as defined by *WILDCAT!*. This list will review the purpose of each file without expanding on the tailor-made possibilities. See the section Custom Display Files which follows for tips and techniques to enhance the display files used on the system.

Most display files may be of two types, non-color and those containing ANSI color codes. The standard extension for non-color files is .BBS while color uses .SCR. During the following discussion the tag (.SCR) indicates the file is also available in color ANSI mode with the .SCR extension. Note that although your distribution diskette has an example of most files, it does not contain an example of every .SCR version.

### **AFTERDOS.BBS (.SCR)**

This file is displayed to a caller after the sysop has returned from a local Drop To DOS using ALT-D. When ALT-D is pressed the caller is sent a message indicating that the sysop has dropped to DOS temporarily. When the sysop types EXIT to return to the session, the file AFTERDOS.BBS is displayed to the caller.

### **ALT5.BBS through ALT9.BBS (.SCR)**

The text associated with these files is sent to the user when the ALT key is pressed along with the associated number key. The use of this group of files is optional. If one or more of the files is not found in the *WILDCAT!* sub-directory, the function associated with that particular key will simply not

work. If found, each selection will deliver the previously written message contained in ALT#.BBS to the online user. The files may be of any length, but would typically be one sentence or paragraph, or certainly no more than one screen full of information.

Each of these files is for the exclusive use of the system operator while at the local (non-remote) console. Each selection allows the system operator to display or "dump" the contents of the associated ALT#.BBS file to the user. For example, suppose you had previously created the following message using your word processor and named the file ALT5.BBS, and pressed ALT-5 while a user was at the Main Menu prompt:

MAIN MENU: [F,M,B,S,P,Q,U,I,D] ? \_

Pardon the interruption Rick. The system will be brought down in five minutes for scheduled maintenance. Please complete your activities in that time and call back later.

Thank You,  
SYSOP

*The ALT files  
send a message  
and may cause a  
logoff if desired*

By pressing the ALT and 5 (not ALT-F5) keys, this message would have scrolled to the user who happened to be online at the time. These files will interrupt any process except uploading and downloading.

### **ALT1.BBS through ALT4.BBS (.SCR)**

These files are similar to the ALT5.BBS through ALT9.BBS files, and are also optional, with one important difference. Upon completion of the file dump to the user, the user will then be automatically logged off the system. These are useful for a number of reasons. Perhaps the user in the example above failed to complete his activities, and appeared to have

no intention of doing so. One of these keys would take care of the situation.

**Caution:** The keys ALT-1 through ALT-4 are functional whether or not the associated file is found. If the ALT# key is invoked, and a corresponding file does not exist, the user will simply be logged off without a warning message, just as if the [G]oodbye menu option had been selected.

### **ALT0.BBS (.SCR)**

The ALT-0 (zero) option works with a file called ALT0.BBS. This option is listed separately, since its function is to:

- *scroll the file to the user;*
- *immediately log-off the user;*
- *LOCK OUT the user (prevent subsequent logons).*

**Caution:** This option will log-off and lock out the user whether or not the related file name exists, and also writes the locked out condition to the user database. The user is denied any further logons to the system. The status of the user may only be reversed by the system operator by entering the user database and manually toggling the locked out status of the user. For this reason, be careful in the use of this option.

### **AREA-?.BBS (.SCR)**

This is a group of files used as a header when file listings are displayed to the caller. The ? is replaced by the file area letter such as A for file area "A", B for area "B", etc. This header file can be as many lines as needed, but is usually limited to 1-5 lines to allow for display of files on screen after the header. If the appropriate AREA-?.BBS file is not found, the text of the file area description given in MAKEWILD is displayed as a header.

### **BADFILES.LST**

This file is not actually a display file, but is created and maintained by the system operator. It contains the names of

files which may not be uploaded by any caller under any circumstances. It is a plain ASCII text file containing one filename per line. It is recommended that the names of your batch files (CAT.BAT, ZUP.BAT, ZDOWN.BAT, etc) be placed in this file. This will prevent callers from sending duplicates of your batch control files which may perform unwanted or destructive activities. Any additional filenames may also be included to prevent uploads as desired. Although wildcards such as \* and ? are NOT supported, you may omit an extension from a filename which will result in suppression of uploads of any file with the root filename. For example, including the name WILDCAT in the list will prevent uploads of WILDCAT.ZIP, WILDCAT.EXE or any other files starting with WILDCAT.

### BADNAMES.LST

Although this file is not a display file, it is created and maintained by the system operator. During logon, *WILDCAT!* will check this file for validity of the caller's first and last name. This is useful in helping avoid the "CB handle" names prevalent on many boards, if they are not desired. Each line of the file must contain a single name followed by a carriage return. Suppose the first few lines of BADNAMES.LST contained the following data:

*"Handles" may  
be screened at  
logon*

```
dude  
mrs.  
doe  
code  
bad  
cracker  
john
```

When a user enters his or her first or last name, *WILDCAT!* quickly scans the BADNAMES.LST file for a match. The search is insensitive to case. Since this is another security device, a little extra attention will be spent on this subject to assure your understanding of the procedure. Let's explore the benefits and possible short-comings of the sample listing above.

**Good** Any user who's name was "Code Cracker" or "Bad Dude" would be immediately logged off the system, without being permitted the chance to register, and without being written to the userlog. A record of the failed logon event will be written to the ACTIVITY.LOG and the printer (if available).

**Good / Bad** A user who enters "+++" (which is the standard modem attention command code) will also be logged off. The user may have done this in complete innocence, due to keystrokes intended for their own modem. On the other hand, it could be a potential "board buster" who's trying to take control of your modem and damage the system. This situation is not really a concern since the standard modem setup strings include a command to disable the +++ command (S2=255).

**Bad** Users with the names "John Doe", "James Code" or "Mrs. Abrams" would also be logged off the system as mentioned above. This includes those users whose real name happens to be "John Doe", etc., and worse, any user who's first or last name is "John". Make your list with this in mind!

### **BADNAMES.BBS**

This file is sent to any user whose login name is found in BADNAMES.LST, prior to logging them off.

### **BEGPAGE.BBS (.SCR)**

This is the BEGIN PAGE display file. *WILDCAT!* by default prints a brief statement when the system operator answers a page or enters page chat, to introduce this activity to the user. BEGPAGE.BBS is an optional ASCII file which may be used to change the message scrolled to the user when PAGE is invoked. The code first looks for the BEGPAGE.BBS file, and if not found, scrolls the built-in default statement to the user.

### **BIRTHDAY.BBS (.SCR)**

This file is displayed IF the user calls on the anniversary of the date entered as date of birth in the user file record.

### **BULLETIN.BBS (.SCR)**

BULLETIN.BBS is in effect a sub-menu. It is displayed when the [B]ulletins option is selected from the main menu. This file should contain a listing of available bulletins, including the bulletin number, and a brief description of the contents of the associated bulletin.

The bulletin number listed in this file and description the bulletins must agree with both the number and content of BULL#.BBS, described below.

### **BULL#.BBS (.SCR)**

The “#” is the bulletin number, i.e. BULL14.BBS would be bulletin number 14. The actual bulletin is an ASCII file of any length. *WILDCAT!* will handle the appropriate screen pauses. The value of “#” must agree with the numbering and description given in BULLETIN.BBS, and the total quantity of bulletins must agree with the value entered in MAKEWILD.

### **CHAT.HLP**

The help file displayed when a caller asks for [H]elp after selecting [T]alk to other nodes (inter-node chat). It provides an explanation of how to page another node or to enter private or public chat.

### **CHATC.HLP**

Color ANSI version of CHAT.HLP above.

### **CHATCMD.HLP**

Short for Chat Command Help, the help file displayed when a caller is in multi-node chat and types /HELP at the beginning of a text entry line. This file is active only in multi-node configurations.

### **CHATCMD.C.HLP**

Color ANSI version of the Chat command line help file above.

**CLOSED.BBS**

This is the file which is displayed in the event you have elected to run a closed system. The file will be displayed prior to taking the action defined in MAKEWILD.

**COMMENTS.BBS (.SCR)**

This file is displayed to a caller after electing to leave a comment to the sysop on the main menu. It might consist of a short notice reminding a user of the information required in a comment for proper registration, etc.

**DLIMIT.BBS (.SCR)**

This name stands for download limit, and is sent to a caller when denied access to a download due to already reaching the download limit for # of files.

**DLKLIMIT.BBS (.SCR)**

Download K limit is sent to a caller if a download request would cause the user to exceed the download K-byte limit as specified by security level.

**DOORS.BBS (.SCR)**

A menu file similar to BULLETIN.BBS that lists the available doors by number. It is set up and accessed in exactly the same manner as the bulletin equivalent. The number of doors listed on this text menu should agree with that set in MAKEWILD. It should be placed in the Path for doors as specified in MAKEWILD.

**DOOR#.BAT**

Individual batch files where the # is replaced by the actual number of the door as indicated in DOORS.BBS. See the section [Advanced Features](#) for complete information on doors, including how to properly set up a door batch file. These batch files should be placed in the startup directory, NOT the door path.

### **DOWNLDOK.BBS (.SCR)**

This file is displayed immediately following every download, if successful. It may contain any information you desire, so let your imagination run wild, especially after reading about “custom” displays later on! But considering where and how often it is displayed, the size of the file should be kept as short as possible and still convey your message.

### **DROPDOS.BAT**

This batch file is located in the startup directory, and contains the commands to execute a remote drop to DOS. See the section Advanced Features for detailed creation instructions.

### **EDITMSG.HLP**

This help file is displayed when help is requested within the message editing sub-menu. The standard version distributed with the program should be adequate, but may be modified, if desired.

### **EDITMSGC.HLP**

This is the color version of the message edit help file.

### **ENDPAGE.BBS (.SCR)**

This file follows the same conditions as BEGPAGE.BBS, the difference being that it is scrolled to the user when the PAGE mode is terminated.

### **FILE.HLP and FILE0.HLP through FILE9.HLP**

The non-color help file for the FILE menu. The text in this file should match the menu choices used by each individual menu file created below. Modification may be necessary if any menu selections are changed within MAKEWILD. This caution is in order for all .HLP files on the system. If a correctly numbered FILE#.HLP file is not found, the generic file named FILE.HLP is sent, if it exists.



### **FILEC.HLP and FILE0C.HLP through FILE9C.HLP**

The color version of the file menu help file. This type of naming is used to allow all help files to use the same .HLP extension. Again, if a properly numbered color help file is not found, the generic file named FILEC.HLP will be sent.

### **FILE.BBS and FILE0.BBS through FILE9.BBS (.SCR)**

This is the first example of a menu display file. If the sysop makes use of dynamic menus, the menu files with the extension .BBS will not be needed since non-color callers will get dynamic menus. Likewise, the color ANSI versions (.SCR) will not be required unless the sysop is offering color ANSI menus.

If dynamic menus are not being used, the sysop must create FILE MENU text files ending in .BBS that exactly match the menu choices indicated in MAKEWILD.

If color ANSI menus are being offered, the sysop must create FILE MENU ANSI text files ending in .SCR that exactly match the menu choices indicated in MAKEWILD.

As you recall from the MAKEWILD discussion of security level assignments, you may specify up to 10 different menu files for each security level. These different menu files are designated by numbers from 0 to 9. The menu file without a number (FILE.BBS) is only used if a properly numbered menu file is not found. The sysop must make sure that the appropriate number menu file contains the appropriate menu commands that are desired for the security level assigned to that menu number. Check the MAKEWILD screen for Security Level Definition - Part 1 to refresh your memory as to the assignments made for each level.

### **GOODBYE.BBS (.SCR)**

The GOODBYE file is scrolled to the user just prior to logging off from the system. Although it may be of any length, it is recommended that it just contain a brief "Thank you for calling..." or equivalent. Otherwise a lengthy closing statement may cause a user to just hang up instead of logging off

properly. This file is also optional, since *WILDCAT!* contains a hard-coded log-off statement.

### **HELLO0.BBS through HELLO9.BBS (.SCR)**

This series of display files (zero to nine) is used to display your system's welcome messages. They may contain a "logo", system information, or whatever you want to send to callers as they log in. They typically contain either text or ASCII characters, or a combination of both. The text might indicate the name of the board, perhaps the name of the system operator, date of origin, or other information that you wish to offer to distinguish your board from other boards. Consider them your "show off" screens. All 10 hello screens need not be used, and they may be added, updated, and deleted as needed. The .SCR color versions are especially popular and allow for unlimited creativity.

### **HOTKEY.BBS (.SCR)**

This file is displayed during a caller's first logon to the system, just prior to asking if he wants to make use of the hotkeys option. Hotkeys allow executing all single keystroke choices without the need to press [ENTER] afterwards. It may be used in place of the hard coded message, if desired.

### **MAIN.HLP and MAIN0.HLP through MAIN9.HLP**

The non-color help files for the MAIN menu.

### **MAINC.HLP and MAIN0C.HLP through MAIN9C.HLP**

The color ANSI help files for the MAIN menu.

### **MAIN.BBS and MAIN0.BBS through MAIN9.BBS (.SCR)**

The MAIN menu non-dynamic display files 0-9, and the color ANSI equivalents. See the full explanation of text and ANSI menu files under FILE0.BBS through FILE9.BBS

**MSG.BBS and MSG0.BBS through MSG9.BBS (.SCR)**

The MESSAGE menu non-dynamic display files 0-9, and the color ANSI equivalents. See the full explanation of text and ANSI menu files under FILE0.BBS through FILE9.BBS

**MSG.HLP and MSG0.HLP through MSG9.HLP**

The non-color help files for the MESSAGE menu.

**MSGC.HLP and MSG0C.HLP through MSG9C.HLP**

The color ANSI help files for the MESSAGE menu.

**NEWSLTR.BBS (.SCR)**

This file coincides with the menu option called [N]ewsletter. It may contain text information other than a newsletter, but regardless of the contents of this file, or the menu title or prompt as a result of renaming the option, this file must always be named NEWSLTR.BBS in the directory in order for *WILDCAT!* to implement the function. When a caller logs in, his last call date is checked against the date of this file to determine if it has been updated since his last call. If so, the caller is offered the opportunity to view the file contents immediately.

**NEWUSER.BBS (.SCR)**

The NEWUSER.BBS file is just what the name implies. The file is scrolled to a user only one time ever, that being the first time the user calls the system. Actually, during run-time the caller's name is compared to those contained in the user database, and if not found, *WILDCAT!* assumes the caller is a new user. This is mentioned for two reasons:

- *In the event that a user is deleted from the system (for whatever reason), upon subsequent logon the system would treat that user as if he or she had never called before;*
- *As additional system security, WILDCAT! permits no more than one first/last name combination to appear in the user database, even if the users have totally different passwords. Here is an*

*example of what would happen: First caller, a "regular" user, logs on, using the name "Jim Coleman". The system accepts this, then requests Jim Coleman's password. Then another "Jim Coleman" logs on. The WILDCAT! system then expects the password of the first Jim Coleman, which of course the second caller does not know! The second Jim Coleman must then use a variation of his name (usually first name) to establish a separate identity for him. In this case, changing his first name to "James" would provide the necessary difference to establish his identity. While this situation is rare, it has happened, and it is mentioned here to make you aware of the potential and how to circumvent it.*

### **NO-#.BBS**

When the # is replaced by a node ID number (NO-3.BBS), this display file is sent to any user who attempts to connect to a node but is denied access based on the minimum security level required for access.

### **NO300.BBS (.SCR)**

If 300 baud users are excluded from the system during certain hours as specified in the MAKEWILD configuration, the contents of the NO300.BBS files is scrolled to the caller immediately after logging on to the system. If this file is not found, a brief message is hard-coded into WILDCAT! which indicates to the caller that 300 baud is not permitted at that time, and instructs the caller when 300 baud is allowed.

### **NODE#.BBS**

When the # is replaced by a node number, this display file is sent to all callers connecting with the node indicated. It is sent immediately after the PRELOG.BBS file, even prior to the caller entering name and password. In a single line system it could be used as a second prelog file if it is named NODE1.BBS

### **PAGED.BBS (.SCR)**

The PAGED.BBS file is scrolled to the user under one of several conditions:

## **KEYBOARD SWITCHES**

**Page Off/Bell Off** = PAGED.BBS is displayed if a page is requested and there is no answer during office hours, or if a page is requested outside of the office hours.

**Page Off/Bell On** = Same as above but “beep” is heard if paging is done.

**Page On/Bell Off** = System Operator is paged regardless of the hour, (no “beep” heard), and if system operator fails to answer page, PAGED.BBS is displayed.

**Page On/Bell On** = System Operator is paged, (with audible “beep”), and if system operator does not toggle the page mode, PAGED.BBS is displayed.

## **PAGED.CAP**

This is not actually a display file, but rather a capture file containing the text from sysop page sessions. It is created automatically when the sysop uses F7 to answer a page or enter local chat mode with a remote caller. All text entered is recorded, and subsequent page sessions are appended to the file. Each session is separated by a start and stop log with the date and time.

## **PREDOWN.BBS (.SCR)**

Displayed after a caller has requested a download, before any information about the transfer is requested.

## **PRECHAT.BBS (.SCR)**

Displayed when the [T]alk to other nodes command is requested from the main menu. It contains instructions for inter-node chat and paging other nodes.

### **PREGROUP.BBS (.SCR)**

Displayed as a caller enters group chat from within the [T]alk to other nodes command.

### **PRELOG.BBS**

PRELOG is displayed by *WILDCAT!* after each connection, immediately after the System ID and before the NODE#.BBS file and asking for the caller's name. You may want to make this file uninterruptable by embedding a CTRL-C command at the beginning. See the section Additional Information on Files which follows for details.

### **PREPRIV.BBS (.SCR)**

Displayed as a caller enters private chat from within the [T]alk to other nodes command.

### **PRETEXT.BBS (.SCR)**

This file is displayed when a caller selects the File Menu choice TEXT SEARCH command. It is sent after the caller selects either a Detailed or Fast search, and may be used to provide additional instructions or other information, if desired.

### **PREUP.BBS (.SCR)**

This file is displayed after a user selects the [U]pload a file command from the file menu. It may be used to indicate the SYSOP's rules or preferences, such as only compressed files or "No Games".

### **PROTOCOL.BBS (.SCR)**

This file is displayed when a new user is asked to select their default download protocol during initial logon, as well as when a current user asks to change the default protocol via the main menu. It may be altered to suggest a particular protocol.

**PROTO.HLP**

The non-color help file displayed to users requesting additional help with upload and download protocols from within the file menu using the command [F]ile transfer information.

**PROTOS.HLP**

Color ANSI version of the protocol help file.

**QDONE#.BBS (.SCR)**

These files consist of text and are displayed to the user upon completion of a questionnaire that matches the #. They must be created by the sysop if used.

**QDNECLOS.BBS (.SCR)**

This text file is displayed to the user after completion of the QUESCLOS.BBS questionnaire.

**QSEC#.BBS (.SCR)**

Short for "Quick SECurity display file", this is an ASCII text file associated with a specific security level (#). This particular file is displayed only to those users whose security level match the value of "#", and only on the first call after the particular QSEC#.BBS is created. This is accomplished by displaying the file ONLY if the caller's last logon date precedes the file date of QSEC#.BBS. Example: If your regular users have a security level of "40", a file named QSEC40.BBS (if it exists) is displayed if the caller has not received it before. This file is not erased by the system, but rather is repeated for any callers meeting the criteria. Keep in mind that QSEC#.BBS will not display for any users whose security level is upgraded from one level to another due to the test for QSEC#.BBS file date.

**QUESCLOS.BBS**

This is the questionnaire file which is presented to a new caller IF the system is set up as a closed board and the closed board questionnaire is selected in MAKEWILD. The answers are in QUESCLOS.ANS. See Appendix F for additional information.

### QUESTION.BBS (.SCR)

This file is the text menu file which lists the questionnaires available on the system. It is created and presented in the same manner as the BULLETIN.BBS file and DOORS.BBS file.

### QUES#.BBS

These files are the questionnaire files generated by MAKE-QUES.EXE. They may only be read and manipulated by the *WILDCAT!* code. The # is replaced by the appropriate number of the questionnaire as reflected in the QUESTION.BBS file. [Appendix F](#) contains complete instructions for the MAKE-QUES program.

### QUES#.ANS

These file(s) contain the user's typed-in responses to the QUES#.BBS inquiries. The file is automatically created by *WILDCAT!* if it doesn't exist, and is also appended by the code.

These files may be manipulated by any word processor or the Q-PRO! utility. All answer files are located in the node home path, where the MAKEWILD settings reside.

### QUESNEW.BBS

This is the questionnaire file which is presented to every new caller to the system IF the new user questionnaire is selected in MAKEWILD. The answers are placed in QUESNEW.ANS.

### QDONENEW.BBS (.SCR)

This display file is sent to users after completion of the QUES-NEW.BBS questionnaire.

### QUOTES.BBS

*WILDCAT!* expects to find this file if the QUOTES option is implemented in MAKEWILD. If not found, *WILDCAT!* will continue to run, but will generate an error message to the user and to the activity log.



QUOTES.BBS is different than other display files, so some additional explanation is in order. The following are the criterion that must be observed when creating the file:

- *The file may be created with any ASCII word processor;*
- *The file may be of any length;*
- *The first entry must begin on the first line of the file;*
- *A particular quote may contained any number of lines, with each quote being separated by two consecutive carriage returns.*

Here is an example of the QUOTES.BBS file:

```
This line is quote #1 <C/R>
<C/R>
These lines are quote #2, and
regardless of the
length of the line
would be displayed until
two consecutive carriage
returns are encountered. <C/R>
<C/R>
This is quote #3. <C/R>
<C/R>
```

... and so on for the length of the file.

During the first actual running, *WILDCAT!* is initialized with a pointer to the first record in the QUOTES.BBS file. Thereafter, during each new logon, the user is presented with the next sequential quote in the file. In other words, if your board receives 50 calls a day, and you have 50 different quotes in your QUOTES.BBS file, each caller would receive a different quote. Starting with the 51st caller, the file would recycle to the first quote in the file. The quote pointer is saved after each call and is reinitialized when started after a re-boot.

### **RATIO.BBS (.SCR)**

The contents of RATIO.BBS will be displayed to the caller when the user's upload to download ratio has been exceeded. This ratio is set in MAKEWILD.

### READCMD.HLP

This help file is displayed when [H]elp is requested after using the message [R]ead command on the message menu. It explains how to use the message reading commands such as by number, since, personal, marked, etc.

### READCMD.C.HLP

This is the color version of the above help file.

### READMSG.HLP

This help file is displayed when the [H]elp command is requested after each message is displayed. It explains options available after reading a message, such as threading, killing, forwarding, public/private toggle, etc.

### READMSG.C.HLP

This is the color version of the above help file.

### SAVEAREA.BBS (.SCR)

This file is displayed after a caller completes a message and asks to save the message. It is designed to help a caller make the decision as to which message folder or area to save the message.

### SEC#.BBS (.SCR)

Another ASCII text file, these particular file(s) are displayed only to those users whose security level match the value of "#".

*SEC#.BBS is sent on every logon for every user at that security level until it is erased*

Example: If your regular users have a security level of "40", a file named SEC40.BBS (if it exists) is displayed before anything else after logon. This should be considered a special bulletin for a select group of users, and is displayed during every logon unlike QSEC#.BBS which is only displayed one time.

**SECERROR.BBS (.SCR)**

This file is displayed to a caller who fails to properly answer the verification on either birthdate or phone number. The default text asks the user to correct his user settings if the system records are incorrect. It is sent just prior to forcing the caller to the comments area for an explanation.

**SYSOP.BBS and SYSOP0.BBS through SYSOP9.BBS (.SCR)**

The SYSOP menu non-dynamic display files 0-9, and the color ANSI equivalents. See the full explanation of text and ANSI menu files under FILE0.BBS through FILE9.BBS

**SYSOP.HLP and SYSOP0.HLP through SYSOP9.HLP**

The non-color help file for the SYSOP menus.

**SYSOPC.HLP and SYSOP0C.HLP through SYSOP9C.HLP**

The ANSI help file for the SYSOP's menus.

**TEST-SCR.BBS**

This file is displayed during the caller's initial logon, just prior to asking the caller if he wants to make use of ANSI color (if implemented). It may be used to replace the hard coded message, but should at least contain some ANSI color codes as a test to help callers determine whether they want to activate ANSI color.

**UPLOADOK.BBS (.SCR)**

This file is similar to DOWNLDOK.BBS mentioned previously, except that it is displayed immediately following every upload. As in DOWNLDOK.BBS, it may contain any information you desire.

**USER#.BBS (.SCR)**

Refer to SEC#.BBS for usage syntax. Unlike the SEC file, however, the USER# file (if it exists) will display the contents

of the file to an individual user whose record number in the user database (top of the screen) agrees with the value of "#".

*USER#.BBS  
files are erased  
automatically  
once received by  
the caller*

For example, assume that:

1. A user named "Rick Hartley" existed as a caller on your board;
2. A review of the user database indicated that Rick Hartley's user number was "123".
3. A file named "USER123.BBS" was created in the WILDCAT sub-directory;

Then, during Rick's next logon, whenever that might be:

1. 123.BBS file would be displayed to Rick (only);
2. A memo is recorded in the activity log (and printer) that the file USER123.BBS had been delivered;
3. The USER123.BBS file is then erased.

Note that running WCREPAIR on the User database will cause the user record numbers to be reassigned. If this feature is used, the numbers must be checked if a database repair is completed.

## Additional information on files

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### ANSI COLOR

*WILDCAT!* has the ability to include color and simulated animation in most display files by use of the ANSI color rendition codes. Under normal circumstances a computer system must be instructed how to interpret these codes by a configuration command placed in the CONFIG.SYS file. This setup is NOT required with *WILDCAT!* since an ANSI driver is incorporated into the code.

ANSI files may be created with most text editors or word processors which can handle plain ASCII text, and can also place the ESC character (ASCII 27) into text. The codes to use for various colors are found in the appendix to older versions of DOS (prior to 2.0), and a subset is included in Appendix B of this manual for reference. The alternative to hand entering the codes into your *WILDCAT!* color files is to use one of a number of ANSI generators available as shareware. THEDRAW is a popular choice which was used to create many of the menus used by our own system. It provided an easy method of entering proper codes, even on a monochrome system. It is available through many public BBS systems with a nominal payment request.

### .BBS and .SCR Differences

Most display files may be created in a color ANSI version which will display in color to the caller. These files end in the extension .SCR and contain color codes in addition to text. For example, the file UPLOADOK.BBS is mentioned in the previous section with the tag (.SCR) after it indicating it may be created in color. You could create an ANSI version of this file and it would display in color. Use discretion in this matter, since it takes a lot of extra work to duplicate all of the coded specialty files, and on lesser files the results may not be worth the effort. A good rule of thumb would be to offer static files

in color, static meaning those which do not change often. A “busy” file, such as a newsletter file that is updated often, would rarely be worth the effort of offering a color version.

The SPACEBAR may be used to terminate the scrolling of any display file, either .BBS or .SCR, by either the caller or local SYSOP. This is mentioned here since many ANSI file take an extremely long time to complete a single display screen, and callers may want to abort such a screen. This may be overridden with a control sequence as explained later in this section.

### Customized Files

It is also possible to “personalize” display files. The only requirement is to use a word processor that supports embedded control codes such as the Norton Editor or our own MPE.EXE (Mustang Personal Editor). MPE is available for download from the registered BBS at no charge, and may be freely distributed. When an embedded control code is encountered in a display file during runtime, it will cause the system to extract the corresponding information from the system files. Listed below is a summary of the commands available.

**NOTE:** Many editors are unable to produce some or all codes through keyboard entry.

### System Information:

<b>^S ^B</b>	Current system time (from clock) in format HH:MM
<b>^S ^D</b>	Current system date in format MM/DD/YY
<b>^S ^E</b>	Name of the BBS in MAKEWILD
<b>^S ^F</b>	Total number of files available on the system
<b>^S ^L</b>	Last caller to the node
<b>^S ^N</b>	Total messages on the system
<b>^S ^P</b>	Causes display of the —More— prompt

immediately, regardless of the number of lines that have scrolled. It is ignored if the caller selects Non-stop scrolling.

<sup>^S^S</sup> Sysop's full name from MAKEWILD  
<sup>^S^T</sup> Totals calls received by the system  
<sup>^S^U</sup> Total number of users on the system  
<sup>^S^V</sup> WILDCAT! version number  
<sup>^S^W#</sup> Node ID status; Up, Down, Waiting, etc  
 replace the # with the node ID to list

## User Information

<sup>^U^B</sup> User's birth date  
<sup>^U^C</sup> User's computer type  
<sup>^U^D</sup> User's total number of logons  
<sup>^U^E</sup> User's time remaining this call  
<sup>^U^F</sup> User's location (city, state)  
<sup>^U^G</sup> User's total upload kilobytes  
<sup>^U^H</sup> User's total download kilobytes  
<sup>^U^J</sup> User's total number of downloads  
<sup>^U^K</sup> User's first name  
<sup>^U^L</sup> User's date of last call  
<sup>^U^N</sup> User's full name  
<sup>^U^O</sup> User's total number of uploads  
<sup>^U^P</sup> User's phone number  
<sup>^U^Q</sup> User's Memo date  
<sup>^U^R</sup> Maximum downloads possible per day  
<sup>^U^S</sup> User's date of first call  
<sup>^U^T</sup> User's time on system this call  
<sup>^U^V</sup> User's last [N]ew files search date  
<sup>^U^W</sup> User's security level  
<sup>^U^Y</sup> User's message folders joined  
<sup>^G</sup> Beeps the speaker at the remote terminal only.

*Adding a <sup>^U^K</sup> will place a caller's first name in a display file. It's a great attention getter*

*Force a caller to read a display file by adding a <sup>^C</sup>*

### **^C**

CTRL-C embedded in a file will turn off the user's ability to stop screen display. The file will scroll straight through to the end of the file, disabling the callers ability to use the spacebar to stop the display. When ^C is used the user will receive the appropriate page pauses, but the [S]top option will not be available. Place the Ctrl-C at the beginning of the file if you want it to affect the entire contents.

### **^B**

CTRL-B eliminates the "—More—" prompt line in display files. This would likely be used in your "fancy" graphics screens. No pauses are made.

Both Ctrl-C and Ctrl-B are automatically cancelled at the end of a display file, and need not be turned off unless you want the option to change back prior to the end. Some of these variables are updated during their call in the event of a dropped carrier. These are very powerful functions which when properly and thoughtfully implemented will provide additional enjoyment and assistance to your callers.

### **^L**

This code is actually the form feed character, an ASCII 12, and will clear the screen whenever it is encountered. Use it to clear the screen as the first character for any files you wish. It may be entered with many editors by pressing and holding the ALT key while pressing 1 and 2 on the NUMERIC KEYPAD. It usually displays as the medical symbol for the female, a circle with a cross on top.

**Note:** Using ^U as an example, typing the carat (^) sign plus an "U" as "normal" ASCII text will not yield the desired results. It must be the control character represented by the key combination of your control key and the letter "U".



Depending on the editor used to create your display files, control characters may or may not be represented on screen as a ^ with a letter next to it. Some editors use (sometimes curious looking) screen symbols for display purposes rather than ^.

## **Using MPE (Mustang Personal Editor) for codes.**

Although it is beyond the scope of this manual to provide detailed instructions regarding control code placement, a short explanation of control codes within the MPE program will be addressed.

MPE is an ASCII editor that cannot place control codes directly into a document by simply pressing the control key and the letter. Pressing and holding Ctrl and S does NOT embed a ^S code. It can however add these codes with a special keystroke sequence which lets it know that a control code is desired. At the location in the text where a control code is wanted the user must first press Ctrl-P (hold down the Ctrl key and press the letter P). This keystroke is NOT printed on the screen, but is remembered by MPE. It tells MPE that the very NEXT Ctrl and a letter is to be taken literally and placed into the document. For example, if we want to add the -MORE-prompt at a particular location we need to get TWO control codes into our text, a ^S and a ^P. First we locate the cursor at the desired position in our display file and then tell MPE that we want a control code by pressing Ctrl P. Nothing happens but MPE is now ready for the real code so we press and hold Ctrl while pressing the letter S. This places a representation of the ^S in our text at the cursor position. Now we need to add the ^P, the second half of the needed embedded code. Again we first press Ctrl P to tell MPE to place the literal code into the text, followed by the code desired which just happens to be another Ctrl P. The second Ctrl P results in a representation of the code for ^P in the display file.

If you are using MPE to place embedded codes in your ANSI color file, you should first create the files in color and then embed the codes with MPE as desired. Remember that some

embedded codes take up a great deal of line space when expanded with the translated text, such as the full user name. Make space allowances accordingly.

This method of placing codes into text is covered in the MPE documentation, and is also used by the Norton Editor.

### Using THEDRAW (and other ANSI editors)

A complete tutorial on ANSI editors is also beyond the scope of this documentation. However, there are a number of pitfalls, curiosities, and special characteristics of most ANSI editors which can be covered in this manual. Be certain to completely review the documentation to the ANSI editor in addition to this brief help file, since these comments may not apply completely to editors other than THEDRAW.

When using an ANSI editor you may be given several options when saving your file to disk. If given choices you should select line lengths as long as possible, preferably 255 characters, and no clear screen (enter them with MPE).

One of the most common problems encountered by new users is the creation a display file which is too long and gets a -MORE- prompt in the middle. This is due to the fact that almost all ANSI screens are saved as 25 lines, or as a screen which will fill a full monitor screen. The solution is rather simple. After completing the creation of the file in THEDRAW, you must edit it in a plain text editor such as MPE.

When the file is viewed in MPE, several precautions must be taken to preserve the correct ANSI placement. The first is the margins should be set to 0 for the left and 255 for the right.

You will quickly see that the color codes appear as codes and are not interpreted. The ESC character (ASCII 27) for example is seen as a highlighted left bracket ( [ ) and is followed by the actual bracket character and color codes as needed to produce the color desired. If you are unfamiliar with ANSI color codes take a look at Appendix B.

The editing which needs to be performed consists of removing the ANSI codes at the very end of the display file. These codes are placed there by THEDRAW to locate the cursor on screen

line 25 at position 1, an action we do NOT want. To get to the bottom of the file, use the down arrow or PgDn key to locate the last line, and then use the right arrow to go to the last character of the file. Once there look to the left and locate the last printable character that you actually want to appear to the caller. If your display file is composed of a message in a double-line border, this would be the lower right corner of the border. Place the cursor to the right of this last printable character and delete everything in the file from that point. The characters to be deleted will include a number of ESC codes (a highlighted bracket) followed by regular brackets, numbers and letters. When you have deleted the necessary characters, place a CR/LF (press ENTER) immediately after the last printable character to start a new line. Your file should now display properly.

Other editing may now be done, including placement of embedded codes. The first thing you may want to do is place a clear screen code as the very first character in the file. Move the cursor to the first character of the file and enter a ^L. Remember, to enter a control character in MPE you first press the Ctrl key and hold it while tapping P, and then press Ctrl and the desired character.

Embedded codes must always be added after a file is created with THEDRAW. If you place an embedded code in a file and then return the file to THEDRAW for color change or other editing, the embedded codes will be changed by THEDRAW. It places ESC characters in front of each code, causing improper display in *WILDCAT!* Whenever you re-edit a color file you must use an editor such as MPE to check your embedded codes and delete the extra ESC codes in front of every control character. Remember, the ESC character displays as a highlighted [ in MPE, and will appear before each control code.



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# WILDCAT! IN ACTION

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*"I never did anything worth doing by accident; nor did any of my inventions  
come by accident; they came by work."*

Thomas Alva Edison

## In this Chapter...

- Batch file operation.  
Why you should run from a batch file.
- Signing on the first time.  
Some initial considerations.  
Your security upgrade to sysop.
- *WILDCAT!* menus.

## Wildcat! in Action

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The previous chapters have dealt with system requirements, setup and file structure. We now move on to actual system operation and command structure. We will make note here that *WILDCAT!* will automatically monitor the “inactive” time while a user is logged on, and disconnect after 5 minutes. A warning is issued after 4 minutes. The exception is the message area where inactivity is extended to 10 minutes with a warning at nine minutes.

### Batch File Operation

Although *WILDCAT!* may be started by typing “WILDCAT” at the DOS prompt, proper operation requires that it be started from within a batch file. If the concept of batch files is unfamiliar, review your DOS manual for additional information. *WILDCAT!* is distributed with a sample startup batch file named CAT.BAT. Although this file may suit your needs as-is, you are encouraged to review it for proper syntax and operation within your system settings. Specifically, change the drive letter and subdirectory name in CAT.BAT to match your installation.

The main advantage to batch file operation is automatic re-start of the program should power be interrupted or the program experience an unrecoverable error. In addition, some program features, such as remote drop to DOS, external events, and doors will not function without batch intervention.

The most basic batch file may simply start *WILDCAT!* and then re-call itself, however this creates a loop from which there is no escape! At a minimum we recommend a cyclical file which calls itself, but allows escape from the batch file if *WILDCAT!* is terminated normally with the F10 key. The method of checking for a “normal” exit via F10 is through use of the DOS `errorlevel` command. An example follows:

ECHO OFF	< prevents display to the screen
CD \WILDCAT	< changes to the proper directory
WILDCAT	< starts the program
IF ERRORLEVEL 0 GOTO END	< checks for normal exit
CAT.BAT	< re— starts this batch file
	< if errorlevel not 0
:END	< only gets here if
	< errorlevel = 0
ECHO ON	< end of file, turn on echo

When *WILDCAT!* is terminated with the F10 key, a DOS parameter called the errorlevel is set to zero (0) by *WILDCAT!*, which is the standard errorlevel for normal program termination. This errorlevel can be set to any number desired by any program when it terminates, and a batch file test may be used to determine the number and take some action. In the case above, we use the batch command IF ERRORLEVEL 0 GOTO END to tell the batch file to jump to the batch file label :END for the next command if the errorlevel is zero. If the errorlevel is not 0 (indicating an abnormal termination or error), the batch file does not branch to the :END label, but continues with the next line (CAT.BAT) which re-starts CAT.BAT all over again. If the sysop intends to make use of the remote drop to DOS, external event functions, or doors, additional batch commands must be added to work with errorlevels. These will be reviewed under the appropriate section in Advanced Features.

## Signing On the First Time

The SYSOP may sign on by using the F1 key locally. This method of logging in bypasses the HELLOx screens and proceeds directly to the bulletin area. The FIRST time the new sysop signs on he (she) will be considered a new user since no names have been entered into the user database, which is created and maintained by the *WILDCAT!* program, not MAKEWILD. The sysop should therefore must proceed to answer the various questions asked of a new user, and continue to the Main Menu. Once the sysop's name is properly entered



into the user database, he should immediately use the F9 key to upgrade his security level to that of the master sysop. Keep in mind that the new security level will take effect immediately, but will become permanent ONLY if a proper logoff is completed.

Just as the user database has no records when *WILDCAT!* is started, the files and message databases are also empty. Users and messages are usually added on a continuing basis as the system takes calls, but the file database may need to be set up beforehand on many systems. We encourage you to proceed with this chapter to become familiar with the menu structure, but you may wish to establish your files database first. In the event that you have run a bulletin board program prior to *WILDCAT!*, a conversion program is included which will automate much of the data entry required. See appendix F for instructions on using the CONVERT & ADDFILES programs. Files may also be entered manually as described shortly in the Menu descriptions.

## **Menus**

There are four major menus available in *WILDCAT!*, each containing a number of very straight-forward selection options. However, there are some options which are either unique to *WILDCAT!*, or handled differently than other bulletin board systems.

The titles, prompts, text and descriptions for the various options under discussion for each menu could differ from one *WILDCAT!* installation to another, those discussed here represent the default *WILDCAT!* setup. In actual operation you may rename any menu function to your liking.

## **MAIN MENU**

Since the MAIN menu is always the first encountered following logon, as well being a gateway to other areas of the system, the discussion will start here. The menu choice selections are

presented in alphabetical order for easy reference, rather than the order in MAKEWILD.

### [B] Bulletin Menu

When the “B” option is selected, the file called BULLETIN.BBS is displayed to the user. The Bulletin menu could be considered a sub-menu of sorts, in that it presents the user with the options of reading one or more bulletins by selecting a bulletin number, or relisting the bulletins that are available for display, or simply returning to the calling menu, in this case the MAIN menu. If any bulletins have been updated since the user’s last logon, the user will be presented a listing of those bulletins by number.

### [C] Comment to the sysop

This choice enables users to enter a private message to the system operator. *WILDCAT!* makes these comments an integral part of the message base for easy reply, if desired. All comments are directed to a separate message folder (Folder “Z”), which means that the comment may not only be replied to, it may be moved to another message folder and made public if so desired.

### [D] Doors to other programs

The user is presented the screen menu DOORS.BBS (.SCR) similar to BULLETIN.BBS) for further prompting as to which door program should be run. See the section Advanced Features for additional information on door operation.

### [F] Files Menu

Presents the user with the Files Menu.

### [G] Goodbye & Logoff

If a user’s current help level is set to the NOVICE mode, choosing the Goodbye option gives the user a way to “back out” of the command, and entering this command brings up a friendly question, “Are you sure you want to logoff?”. If the user responds with a “Y”, then normal logoff procedures

are begun. Otherwise, if the user enters "N" or just [ENTER], *WILDCAT!* will assume the command has been entered in error, and will return to the then current menu. Once a user has changed help levels to REGULAR or EXPERT, this extra prompt will no longer be displayed. The program assumes that the user knows the commands well enough to deliberately wish to log off.

The confirmation prompt may be overridden even in the novice mode of operation by entering "G Y" or "G;Y". This method of stacking commands is available in many locations within *WILDCAT*, and will be pointed out where it is most commonly used. Note that command stacking may not be used with the hot key option.

The Goodbye command is available in ALL major menus and performs exactly the same in each of them.

### **[?] Help with Commands**

There is a help screen associated with each major menu in *WILDCAT!* which more fully explains the options available. Many users will select this option as a "refresher course" after having toggled their expert level to REGULAR or EXPERT.

### **[H] Help Level**

The following sub-menu is presented:

**Current help level is set at: NOVICE**

**[N]ovice, Complete menus, full help.**

**[R]egular, Option line, little help.**

**[E]xpert, NO Help.**

*WILDCAT!* supports three different levels of menu prompts.

**[N]ovice** The first and the default value for new users is the Novice level. At this level, the user is presented with full dynamic menus with a command line prompt containing the name of current menu area, and the first character for a

particular option in the current menu. Sysop created BBS menus or .SCR menus are displayed in their entirety.

**[R]egular** The second level is the Regular level. At this level, menus show only the command line with the name of the current area of the system and the first letter option designators. No menus are displayed at this level. An example would be:

**MAIN MENU [M,F,C,B,P,I,Q,V,Y,U,N,H,?]**

**[E]xpert** The final and highest level is the Expert level. At this level, only the particular area of the system is indicated. No menus or letter designators are included. An example would be:

**MAIN MENU : \_**

The Help level command is available in ALL major menus and the usage is exactly the same in each of them.

### **[I] Initial Welcome Screen**

Contents of the HELLO0 (zero) through HELLO9 files are re-displayed to the caller, with screen pauses determined by manner set up in these respective files. Sometimes a user will stop the original display of one or more of these files using the space bar or CTRL-K, then later wish to review the contents of these entry-level display screens. The "I" option permits doing so without the user having to logoff and then call again.

In addition, if you have a fancy color logo screen in one of your HELLOx files, you might be surprised at how many users will display the file over and over after logging on.

### **[M] Message Menu**

The MESSAGE menu is displayed.

### **[N] Newsletter**

Displays the contents of the NEWSLTR.BBS file to the user with screen pauses. As mentioned in the configuration/setup instructions, this option may be called anything you like, and

the contents may be anything you wish, but the display file itself must be called NEWSLTR.BBS.

### **[P] Page the SYSOP**

This selection is used for the caller to page the system operator. It may be tested by the system operator while logged on locally (sitting at machine), the resulting effect being the same as if a remote user had initiated the page. In addition, answering the page with the F7 key may also be attempted (do this in private, since it looks strange to on-lookers to see a person typing to him or herself...and answering!). The response of the local system may vary depending on whether the current time is within the sysop's paging hours, whether the page override toggle is on, and whether the page bell is turned on or off.

If a page is answered the sysop can type directly to the caller from the local keyboard. The entire text entered during the "conversation" between the sysop and the caller is recorded in the capture file PAGED.CAP. The text of each successive page session is appended to the last session by default.

### **[Q] Questionnaire**

The user is presented the screen menu QUESTION.BBS (similar to BULLETIN.BBS) for further prompting as to which questionnaire to answer. Sample Questionnaires are included.

### **[R] Reports for Sysop**

The SYSOP menu is displayed.

### **[S] System Statistics**

This menu choice displays the of a file named S-PRO!.BBS (or S-PRO!.SCR for color callers), which might contain statistical information about your system. If you make use of the S-PRO! utility (a separate program from Mustang Software) it will automatically create a statistical analysis file for this prompt. In the absence of S-PRO!.BBS or .SCR, a display is generated for the caller indicating basic information about

the system, including the start date, number of callers, users and files.

Remember, you may easily rename the menu prompt for this command (or any others) and have it display any information desired. For example, if you need a second display file similar to the newsletter, you might call this [L]ate breaking news and place your news text in the file named S-PRO!.BBS

### **[T] Talk to other Nodes**

If a multi-line (multi-node) system is in operation this choice will allow users to enter into private and group chat with other nodes. A sub-menu is presented. Details of the inter-node chat function are contained in the multi-line supplemental documentation later in this manual. Single line systems should set the security for this function to a level higher than any user's access.

### **[U] Userlog List**

The caller is presented with the entire user list of the system, displayed in alphabetical order, along with the type of computer they are using, the date they last called and their calling point of origin. The usual screen pauses are in effect while using this option. A sysop may disable this (or any) menu option by setting the security level above that of any user. Be certain to disable this feature if you have elected to lock-out callers when they fail to properly answer security prompts. Otherwise you may find prank callers using this command to discover user's names and intentionally failing the password prompt to perform a lockout..

### **[V] Verify User**

A search can be made on any portion of a any user name on the system. Pressing "V" brings up a sub-prompt - "Enter name or partial name:" At the sub-prompt, enter all (or portion of) a user's first or last name. The more information that is provided at this prompt, the more detailed the resulting search. A search of "Jim" would find every user named Jim

on the system, along with their calling city and state, and the date of their last call.

A search of "jim h" would find, for example, both Jim Hightower and Jim Harvey, plus any others whose first name was Jim and whose last name begins with the letter "H". Notice in this example that the search is also insensitive to case.

### [W] Who is on other nodes

Presents the caller with a list of the names logged on to other nodes sharing the same Master path. If a node is not being used it is reported as Waiting for Calls. In a single user system, this choice should be given a security level access higher than any user.

### [Y] Your System Settings

The user is allowed to make changes to certain information in the User database. When [Y] is selected the following (edited) screen is presented:

Present setting for : Typical User

A. Password	: *****	Security level	: 10
B. Computer type	: AST 386/25	No. of calls	: 8
C. Phone number	: 213-555-9182	High message	: 283
D. Birth date	: 09-26-65	User since	: 04-13-89
E. Screen length	: 23	Last call	: 07-31-89 1:39pm
F. Color menus	: YES	Last new files	: 08-31-89 1:25pm
G. Erase prompt	: YES	Downloads	: 3 Files, 585K
H. Hot keys	: YES	Uploads	: 0 Files, 0K
I. Calling from	: Clement, CA		
J. Folders open	: A,B,C,Z		
K. Default protocol	: Ymodem		
L. Chat status	: Available		

Setting to change [A..L], [ENTER] to Quit:

From the sub-menu, the user may alter the entries in item marked A - L. The right column, which is maintained by the system or the system operator, is provided as information for the user, and may not be changed by the caller.



## MESSAGE MENU

### [C] Check for Mail

**WILDCAT!** scans and lists the numbers of all messages which are either from or to the caller. This is essentially an operation to determine if the caller has any messages waiting, whether new or old. It is a quick review method, but there are more specific and more powerful options that may be used instead.

### [D] Delete Message

This is a routine for erasing old messages directly from the MESSAGE menu. It requires that (1) the message to be deleted is either to or from the user who is attempting to erase same, and (2) that the message number is already known. Messages may also be deleted interactively while reading them in the message area.

*Deleting a message actually moves it to folder "Y" where it remains until the "wastebasket" is emptied*

### [E] Enter Message

The message entry command has a number of features. Initially the user is presented with the prompt:

**To [C/R = ALL]**

At this prompt a specific user name may be entered and **WILDCAT!** will check the user database and allow the entry if the user name exists, otherwise the caller is informed that the user name is not in the database, and asked if he would like to leave the message anyway. Entering a message to a non-existent user is allowed with confirmation to provide integration to external mail systems that extract messages from **WILDCAT!**'s database for forwarding. If a specific name is entered the system then prompts whether a Return Receipt is required:

**Would you like a note dropped in your box confirming when RICK HARDING receives this letter [y/N] ?**

The default is "N" and is selected if the [ENER] key is pressed. If "Y" is selected, *WILDCAT!* will watch for the message to be read by the recipient and automatically generate a message from the "*WILDCAT!* Mail Room" to the sender. This Return Receipt message indicates the date and time the message was received, and is addressed as private mail to the originator of the message. As soon as this Return Receipt message is read by the original sender on a later call it is automatically deleted by the Wildcat! Mail Room. Whether or not a Return Receipt is requested, the prompting continues and the caller is asked whether he wishes to send carbon copies to anyone:

### **Send Carbon Copy #1 to ([ENTER] if none) :**

At this prompt a caller may enter additional names of additional recipients up to a maximum of 9. Each will receive a copy of the message with the notation "cc: User Name" appended to the bottom. Carbon Copies are always toggled private.

The caller then is asked for the Subject of the message and may enter up to 40 characters. The final prompt prior to message entry is whether to make the message private. Private mail is seen only by the sender, recipient and any users who have FULL sysop mail reading privileges as indicated in MAKEWILD. This prompt is skipped for mail addressed to ALL.

Message text entry follows. Messages can be up to 150 lines long and a blank line (ENTER only) indicates the last line.

A text import feature is available during message entry to add commonly used phrases or other text within a message. It consists of placing the two "import characters" << in front of a filename containing the text to be inserted. The text file may be of any size up to the 150 line max, and lines must be limited to 70 characters or less. The file must exist in the Message database path, and must end in the extension **.IMP** to operate properly. The import characters must be located at the beginning of a line, immediately followed by the text file name.

- 1: **Jim, let me offer some help with your problem.**
2. **<<HELP.IMP**
- 3.
4. **Give a call if you need additional information.**

The above example will result in Jim seeing line 1 of the message followed by lines 2-? containing the text of the file HELP.IMP located in the path for the message database. As many import files as needed may be included in a message, and may be inter-mixed with typed text.

The actual text of the file HELP.IMP is not placed in the message database, but is dynamically incorporated at the time of receipt.

The Message Entry prompt appears at the end of text entry:

**[A]bort, [C]ontinue, [D]el, [E]dit, [L]ist, [I]nsert, [H]elp, [+ ]Subj., [S]ave : \_**

[A]bort - signals a desire to discontinue message entry and lose all text entered. A warning follows: Are you sure you want to abort? A yes answer return the caller to the message menu.

[C]ontinue - Returns to the message editor at the next available line.

[D]elete - Prompts for the first line to delete and then for the last line. Prior to performing the deletion the text of the lines to be deleted is displayed for confirmation. Deleted lines are removed and higher-numbered lines move up.

[E]dit - The message line editor is probably one of the most misunderstood functions in message entry. Because of the line-by-line nature of serial communications, a full screen editor must make use of some type of terminal emulation such as VT-100 or ANSI codes. At the present time *WILDCAT!* does not include full-screen ANSI cursor movement. Instead, a search for text to be changed is followed by insertion

of the corrected text. The terminology used is OLDSTRING for the text to be replaced and NEWSTRING for the new text. After asking for the line number to be edited, WILDCAT! needs to know what needs to be changed. The syntax used to implement this procedure is OLDSTRING;NEWSTRING (note the semicolon between the two words). This command is translated as "Take the first occurrence of the characters OLDSTRING and delete them, then insert the characters NEWSTRING in the same location. For example, if the message line reads:

**this is a message to shw how to use th Edit command.**

Obviously we need to change two errors, the word "th" for "the" and "shw" for "show". First lets fix "shw" by using the command "shw;show" which scans for the word "shw" and replaces it with "show". Now the harder correction. Notice that the first occurrence of the incorrect text "th" is actually a part of correct text "this" in the 1st word. Therefore we can't simply use the command "th;the" or the new message will read "this is a message...". The proper method is to broaden the OLDSTRING search to include additional unique text such as "use th;use the". Notice that we can replace any number of letters even with a shorter or longer NEWSTRING.

After an edit the caller is presented with the corrected line and allowed to make more corrections, if needed. A blank [ENTER] terminates the Edit mode. Note that editing an existing message (one that has previously been saved) will result in a change to the message date and time to properly reflect the revised contents.

[L]ist - this command redisplay all message lines using appropriate pauses.

[I]nsert - Allows insertion of new lines in the text. The user is prompted for the line number where new lines should be inserted. The selected line number moves down, and a new line is added at the chosen number. Any number of new lines will be inserted as word-wrap creates more new lines as needed.

[H]elp - Presents the caller with the contents of the display file EDITMSG.HLP or EDITMSGC.HLP which contains information similar to the instructions here.

[+] Subj - Pressing the plus key (+) allows editing the Subject line of the message in the event that it is incorrect or misspelled.

[S]ave - After the message has been proofread and edited, the Save command will update the message base with the message and appropriate carbon copies, if requested.

A full summary of these commands are contained in the help files MSGCMD.HLP and MSGREAD.HLP.

#### **[F] Files Menu**

Presents the caller with the Files menu. This choice is available from both the Main menu and the Message Menu.

#### **[G] Goodbye & Logoff**

Refer to the [G] option discussion under MAIN menu.

#### **[?] Command Help**

Refer to the [?] option discussion under MAIN menu.

#### **[H] Help Level**

Refer to the [H] option discussion under MAIN menu.

#### **[N] Net Mail (call errorlevel 35)**

This is a special message section menu choice which is used to enable the advanced implementation of Net and Echo mail processing. If used, it allows *WILDCAT!* to transfer control to another program for net or echo mail entry by users. It operates in a manner very similar to doors, and is more fully explained in the Advanced Features section.

#### **[Q] Quit to Main Menu**

Exits the current menu and returns to MAIN menu.

### [R] Read Messages

A sub-menu is displayed with the following choices:

**Starting from [1..370] [S]ince, [T]o, [F]rom, [M]arked, [H]elp  
[ENTER] to Quit :**

A caller's first choice is to read mail by number by entering any number between 1 and 370, the last message available. If a number is entered it may optionally be followed by the minus sign ( - ) to indicate reading backwards from that message. Other choices are:

[S]ince the last message read previously.

[T]o the caller

[F]rom the caller

[M]arked mail, which displays messages marked for reading by *WILDCAT!* at the time of logon. It includes all messages addressed to the caller which have NOT been received. Personal mail will continue to be marked at logon until received.

[I]ndividual message reading, reads a single message by number without continuing to the subsequent messages.

[H]elp is available to review all possible choices at this prompt.

Another message reading option allows reading messages in FOLDER order. This is a convenient method of reading all related messages as a group, and is easily accomplished by using the ! in your message read instructions. The ! tells *WILDCAT!* to read in folder order, and it may be added immediately after many read requests, such as S! for messages since your last call in folder order, or 223! to read from message 223 in folder order.

After entering a message read command, *WILDCAT!* offers a prompt allowing limitation of the message folders to be accessed. The default is all message folders which are open to the caller, but the caller may limit the command by entering folder letters desired.

After a message is read the user has several possible options, depending on the nature of the message, his security level and whether the message is TO or FROM him. The complete range of possible options and the circumstances of their appearance is:

**###** - After each message a user may branch to another message number in the same manner as when the Read command was initiated.

**[F]orward** - This choice allows sending a copy of the message to any other user on the system. It creates a private message to the new recipient with a note indicating that it was originally addressed to another person and forwarded by the reader. Forwarding a message to ALL is a valid response which creates a public message to ALL.

**[R]eply** - This choice is available on all messages unless the user's security level prohibits message entry by definition in MAKEWILD. A reply generates a message FROM the caller addressed TO the sender of the original message, with the option of changing the subject, if desired. The decision to keep or alter the subject is important since message THREADING is based on the subject.

**[K]ill** - The ability to kill (delete) a message is offered to the sender, receiver and those who have been given sysop mail reading privileges, ONLY IF THEY HAVE ALSO BEEN GIVEN THE ABILITY TO USE THE DELETE MESSAGES COMMAND ON THE MESSAGE MENU. When the kill option is used the selected message is actually moved to message folder Y, the Wastebasket. If you want to prevent all callers from deleting any messages (even their own), simply set the security required for the Message menu [D]elete messages option higher than any caller.

**[M]ove** - This command allows changing the message folder assignment for the current message. It is offered as a choice under the same circumstances as the [K]ill option. The user has the option of placing the message in any folder to which he has access.

[N]onstop - Selects nonstop message reading from that message forward. It may be used to capture messages to a file for reading off-line, or to quickly move forward in the message base. Nonstop reading can be terminated with a tap on the spacebar.

[P]ublic / [P]rivate - One of these two prompts is offered to the sender, receiver and sysop in order to toggle the message from Public to Private or vice-versa. After a change the message is re-screened.

[S]napshot - This choice is offered to any user who logs on locally, either using the F1 key or ALT-L. It prints a formatted copy of the current message to the printer.

[E]dit - The ability to edit a message after reading is offered to the sender and those who have been given sysop mail reading privileges. Selecting the edit mode clears the screen and re-displays the message with the same prompts encountered when message entry is completed and a blank C/R has been entered. The user may delete lines, insert lines, edit specific lines, change the subject, list the message and save a revised copy. A special help file is available within the edit function.

### [S] Scan Messages

Scanning messages differs from [R]eading in that the text of the messages is not displayed, only the header information. It is used in cases where a quick review of the messages is needed. A caller may elect to limit the scan to specific folders, if desired, and scanned messages can be marked as they are displayed. Marking scanned messages is accomplished by selecting MARK at the prompt after a screen of messages is displayed, followed by the messages numbers to mark.

### [T] Text search in a Message

Text search looks for messages which contain a user specified text string in the message header. The header information includes the TO:, FROM:, and SUBJECT: fields. Matching messages may be marked for reading with the Read/Marked



command if desired. Selecting [T]ext search displays the sub-prompt:

**Message text search: Searches for a match anywhere in name or subject  
Enter text or [ENTER] to Quit :**

The search is insensitive to case, and will locate the desired text anywhere within the fields searched. Message numbers containing the text in the header are displayed.

### **[U] Update Mail Folders**

This option is used to toggle message folders Open or Closed, and will only reflect folders to which a caller has access rights based on security level.

A sub-prompt similar to the following is displayed:

[A] - WILDCAT! Questions & Answers      [B] - Other Mustang SW Produc  
[C] - WILDCAT! BBS Advertisements      [Y] - Deleted Message Review  
[Z] - Comments to Mustang Software

Folders currently open: A,B,C,Z

[O]pen message folders. [C]lose message folders. [ENTER] to Quit:

A caller may [O]pen or [C]lose a folder or number of folders at any time. If a "normal" logoff occurs (excluding dropped carrier, etc.), the caller's updated selections will be maintained in the user database for all subsequent logons. To enter more than one folder a caller may enter the folder letters one after the other, or separated by spaces or commas (ACDEF or A C D E F or A,C,D,E,F). If a particular folder is already open or closed the request is ignored.



## **FILES MENU**

### **[D] Download File(s)**

Further prompts for transfer protocol (if no user default is active) and filename will follow. Internal Ymodem and Ymodem-G will allow up to 50 filenames to be entered, based on user time remaining. Some external protocols will allow up to seven filenames to be entered. Following a request for download and entering a protocol and file name(s) to download, the request is checked for validity. From that point forward it is up to the caller's communication program to properly begin the transfer and carry it to successful completion of the download. A pop-up window is displayed on the local monitor which indicates the present state of the download in progress, unless an external protocol has been selected. The screen display for external protocols varies depending on the protocol used. See [Advanced Features](#) for more details of external protocols and multiple file transfers.

An in-depth explanation of the various protocols available in *WILDCAT!* is contained in the on-line help file PROTO.HLP discussed below.

### **[F] File Transfer Information**

Results in the display of a file called PROTO.HLP. The usual screen pauses are in effect. This option provides a more detailed discussion to the user about the many differences in various upload and download protocols, in addition to assistance in uploading and downloading procedures. The text contained in the display file PROTO.HLP should be edited to reflect not only *WILDCAT!*'s internal protocols, but any external protocols added by the system operator.

### **[G] Goodbye and Log-off**

Refer to the [G] option discussion under MAIN menu.

### **[?] Command Help**

Refer to the [?] option discussion under MAIN menu.

### [H] Help level

Refer to the [H] option discussion under Main menu.

### [I] Information on a file

Results in a sub-prompt

Enter file name, [ENTER] to Quit :

At the sub-prompt the caller should enter the full filename to be checked. Suppose a file called "WILDCAT2.EXE" existed in one of the download areas. The following screen is displayed:

```
Enter file name, [ENTER] to Quit: wilddat2.exe
```

```
File Name       : WILDCAT2.EXE
File Date       : 07-13-89  7:33pm
File Size       : 146964
File Desc 1     : WILDCAT! ver. 1.03SW part 2 of 4. All
File Desc 2     : are needed for operation. DOC file.
Uploaded By    : RICK HEMING
Last Accessed   : 08-05-89  7:37pm
File Area       : U - WILDCAT! shareware prog & docs
No. of Downloads: 41
Password Req.   : NO
Download time   : 00:03:11
```

```
Press [ENTER] to continue...
```

### [L] List available Files

Presents a sub-prompt asking which file areas should be listed.

File areas may be selected either alone or in groups. B;C;D will list the files available in areas "B", "C" & "D". Spaces may also be used as a delimiter in the sub-prompt or the letters may be entered one following the other, ie B C D or BCD.

Files are displayed in order by file area, and in alphabetical order within each area. To view files by date order, use the

[N]ew files command and select the starting date as desired. Both 1 and 2 line description formats are available.

### **[M] Message Menu**

Presents the Message menu, without having to traverse through the main menu.

### **[N] New files since last N**

Displays a sub-prompt requesting the date to use as a basis for the search. The default date is the last time the caller used this particular option, not the last logon. A new user's search date is always set to "01/01/80". A user can logon for weeks, even months, and providing the "N" option is not selected during a particular logon, the default date will not be changed. A user may manually enter any date from which to start a new files search, allowing a display of all files added since any date desired.

*New Files are  
listed in date  
order, newest  
first*

### **[Q] Quit to the Main Menu**

Exits the FILE menu and returns to MAIN menu.

### **[R] Read a Text File**

A sub-prompt requests the name of any ASCII file listed in the file database. The selected text file is displayed with appropriate screen pauses. Files which are obviously not in ASCII format such as .COM, .EXE, .ARC, .ZIP etc. are accepted at the sub-prompt, but a warning is issued that the file may be unreadable when displayed. Embedded codes are properly interpreted if found in the file.

### **[S] Statistics on Files**

Statistics presents the caller with a complete summary of file information for both the system as well as his own file database activity and limits.

A screen similar to the following is displayed:

### File Statistics

Available Bytes for uploads:

129,818,432 for area(s): M,S,U,U

=====

Your statistics:

For TODAY (08-06-89):

	Your Totals	Daily Limits
Number of downloads :	5	100
Total download kilobytes:	236	9,999

-----

Your cumulative totals since your first call on 02-01-89:

Number of uploads you've made :	3
Number of downloads you've made :	8
Accumulated upload kilobytes are :	124
Accumulated download kilobytes are :	521

Press [ENTER] to continue...

### [T] Text Search

When this choice is selected the user is first asked which kind of search he wants:

- [F] - Fast File Search (scans file names only) or
- [D] - Detailed Search (scans file names, descriptions, and contributor)

[F]ast Search, [D]etailed Search, [ENTER] to Quit :

After selecting either [F]ast or [D]etailed the user is further prompted for the specific file areas to be searched. File areas may be entered without spaces, or the + key may be entered to indicate a search of all areas to which the user has access.

This search is not case sensitive. The more characters entered the narrower the search criteria. For example, entering "txt" would find every occurrence of the characters "txt" in the file

database, such as "MYTXT.OVL", "README.TXT", or "YOUR-TXT.ZIP".

This feature is a handy way of locating those files uploaded by a particular user. Simply enter a portion (or all) of a user's name at the prompt, and all of the files uploaded by that user will be displayed.

*Text Search is the easiest way to get a list of all files uploaded by a particular user*

## [U] Upload Files

The caller is prompted to:

1. Enter the transfer protocol to be used;
2. Enter the filename being uploaded. This prompt is skipped if the protocol selected is capable of batch transfer that includes the filename in the transfer header;
3. Choose a file area in which to save the file, with a file area listing available by typing "?" at the prompt. If the caller has only one choice of upload areas this prompt is skipped;
3. Indicate whether the file should be password protected. If a file is password protected, another user must know the password in order to download the file. Password protected files may be excluded from file listings, a configurable parameter in MAKEWILD. In the case of batch transfers, a single password may be established for all uploads in the batch if desired, but not on an individual basis.
4. Enter a description of the file contents. This prompt is delayed until after the transfer for batch uploads when WILDCAT! prompts for separate descriptions for each file received.

If a batch file transfer sends a file which is already catalogued in the File database, *WILDCAT!* will accept the replacement file if the caller has overwrite privileges. If not, the new file is still accepted but the last character of the file extension is changed to the number 1, and a note is placed in the ACTIVITY.LOG. The log entry will include the name of each duplicate file received and the new name assigned by *WILDCAT!*.

Again, the caller is responsible for properly initiating the sending of the file on the other end. Uploads using External file transfer protocols are allowed, but are limited to one file at a time.

### **[V] View a Compressed File**

This selection is designed to allow viewing of a compressed file saved in one of a number of formats such as .ARC, .PAK, .ZIP, or .ZOO. It causes *WILDCAT!* to “shell” to a second copy of the command processor and to execute VIEWCOMP.BAT. The filename selected is passed to the batch file using the %1 parameter. This batch file **MUST** be created by the sysop for proper operation. See [Advanced Features](#) for a more detailed explanation of this feature.



## SYSOP MENU

### [A] Activity Log

Displays the contents of ACTIVITY.LOG in last-in, first-out order. Screen pauses are implemented.

### [C] Create Events

This choice is used to create new events to be run automatically by *WILDCAT!*. A sub-prompt is displayed asking which event to create:

#### Event #[x]?

where x represents the next unused event letter. Pressing the [ENTER] key aborts with no change in events structure. Refer to the section Advanced Features, "Creating Events" for complete information.

### [D] Drop to Dos

This choice is used to drop to DOS when calling in from remote ONLY. If selected while connected locally (non-remote), the caller is reminded that it is for remote use only, and the use of ALT-D is suggested.

If the SYSOP has specified that Drop to DOS is allowed, *WILDCAT!* sets the errorlevel to 40 and terminates. The remote caller is then allowed access to the operating system through the communication port IF the proper batch files have been configured in advance. See "Remote Drop to DOS" in the chapter Advanced Features for additional information.

Unless there is a very good reason for it, this option should be confined to the system operator or disabled!

### [E] Event Updates

This choice is used for updating and changing previously established events. Selecting an event number (providing at least one exists), will permit toggling the event on or off, or

*Remote Drop to DOS must be activated in MAKEWILD for the "D" command to operate, and proper batch files must be used.*

changing other conditions of that particular event, including days of operation, etc. See the section Advanced Features for additional information.

### [F] File Database Area

This selection is used to access and manipulate the file database within *WILDCAT!*. It is the command center for the listing of all files available for download on the system. Selecting this choice displays a screen similar to the following:

```
Record Number : 12                                AREA SET: NONE

1. File Name      : BS.EXE
2. File Date      : 07-13-89  7:41pm
3. Size           : 104526
4. Desc 1         : BRAINSTORM, the LAN Idea Sharing Tool.
5. Desc 2         : File/record locking message sharing.
6. Uploader       : RICK HEMING
7. Last Accessed  : 07-31-89  5:21pm
8. File Area      : M - "Mustang Software, Inc. Products"
9. No. of Downloads : 7
10. Password Req. : No
11. Password      :

[1..11] to edit record, [F]ind, [S]earch, [P]revious, [A]dd, [D]elete,
[M]atch/Set area, [R]ead, [Q]uit, [ENTER] for next record:
```

The system operator may change any of the entries by selecting the corresponding item number to edit. The sub-menu options perform the following operations:

[F]ind - Prompts for full file name to locate a particular file.

[S]earch - Full or partial file name required for search, then provides option of saying yes or no to each successful find.

[P]rev - Previous - goes back one file alphabetically, matching the Match/Set criteria (see below) if being used for search criterion.

[A]dd - Allows manual entry of a new file. If the file already has been placed in the appropriate file path, *WILDCAT!* will bypass the prompt for both file date and size and make use of the correct information from the disk.

[D]elete - Allows deletion of an entry in the file database with an option to delete the file from the disk also. A file may be deleted only from the database, in which case it remains available on disk but may not be downloaded or otherwise accessed by anyone.

[M]atch - Match or Set File Area - permits entering a file area letter such as A or B as search criterion. All files contained in this area are displayed one at a time, in alphabetical order. Pressing C/R at the Match prompt resets the Match/set area to NONE, as does reaching the end of the files matching the criteria. The status of the Match/Set is indicated at the top of the screen.

[R]ead a file - This choice is the same as reading a text file from the file menu. It may be used to review or check the contents of ASCII files without leaving the sysop menu.

[Q]uit - Discontinue file database maintenance, return to sysop menu.

[ENTER] - Advances to the next file alphabetically, matching search criterion, if Match/Set has been requested.

*Using #1 to  
change a file  
name or #8 to  
change the area-  
causes  
WILDCAT! to  
alter the database  
and actually  
rename the file or  
move it to the new  
subdirectory*

## **[G] Goodbye & Logoff**

Refer to the [G] option discussion under MAIN menu.

## **[?] Help with Commands**

Refer to the command help discussion under MAIN menu.

### [K] Kill Activity Log

This is the proper method of erasing the ACTIVITY.LOG file when it becomes an unmanageable size. By responding “Y” to the confirmation sub-prompt, the activity log will be erased and a new copy of ACTIVITY.LOG started.

### [L] List Scheduled Events

Listing the currently established events presents a screen showing the:

- *number of the scheduled event;*
- *current status (enabled/disabled) of the event;*
- *length of time the event is to run;*
- *day of the week the event is to run;*
- *schedule identifier (“Y”, “X”, “A”, “B”), etc*
- *description of the event.*

It informs the system operator as to what automatic system events are to occur, and when.

### [P] Print the User File

Prints to the printer a complete alphabetical listing of the user database, including all information known about that user.

### [Q] Quit to the Main Menu

Exits the sysop menu and returns to MAIN menu.

### [S] Statistics on Databases

This is an information option for the sysop, indicating the current status of the various databases.

**[U] User Database Area**

This choice is used to access the user database within *WILDCAT!*. Complete control over your system callers is available in this area. The following screen is presented:

Record Number : 1833

LEVEL SET: NONE

1. User's name	: Typical User	2. Security level:	18
3. Phone	: 213-555-9182	4. No. of uploads:	0
5. From	: Clement, CA	6. No. of downloads:	0
7. Password	: ACTONMBUSY	8. Help level	: NOVICE
9. Last called on	: 07-31-89 1:39pm	10. Page available:	YES
11. New files	: 07-31-89 1:25pm	12. Color menus	: YES
13. D.O.B.	: 09-29-65 (Age 23)	14. Erase prompt	: YES
15. User since	: 04-13-89	16. Locked out	: NO
17. Memo date	: - -	18. Use hot keys	: YES
19. Viewing folders	: ABCZ	20. Total calls	: 8
21. Computer	: AST 386/25	22. High msg read	: 283
23. Today's downloads	: 1	24. Total upload k:	0
25. Today's download k	: 124	26. Total download k:	585
27. Protocol	: Ymodem	28. Time remaining:	00
29. Lines per page	: 23		

[1..29], [F]ind, [S]earch, [A]dd, [D]elete, [P]rev., [M]atch/Set level, [Q]uit  
 [W]rite a message to this user, [ENTER] for next record:

The system operator may change any of the entries by selecting the corresponding item number to edit. Keep in mind that some of these settings are generated by *WILDCAT!*'s internal operation such as the number of files uploaded, etc. Use caution in changing these values.

Although most user database items are self-explanatory we will review a few of the fields for clarity.

**User Since** - indicates the date and year of the user's first call to the system, and never changes unless altered here.

**Viewing folders** - lists the letters of the message folders that the user currently has open for viewing. This changes as folders are opened and closed.

**New Files** - This date reflects the last time the user made use of the [N]ew files command in the File menu.

**Erase prompt** - if toggled to "YES", the pause prompt at the end of a screen - More - [C]ontinue, [S]top, [N]onstop is erased using the backspace character when a response is made. If set to "NO" the prompt will remain on screen and a new line will begin. This feature is present for systems which cannot handle the backspace character.

*Phone numbers  
and birthdates  
which are set to  
all zeros will  
cause a prompt  
for a correct  
entry during  
the next  
verification call*

**Time remaining** - reflects the number of minutes of use available at the end of the user's last call. It is reset if the next call comes in on a new date.

**Memo date** - this field is unused by *WILDCAT!* and is available to the system operator. It might be used to enter an expiration date for pay systems, or whatever else meets the sysop's needs. This field can be manipulated with the U-PRO! utility program to easily handle subscription systems with automatic security level change and notification upon expiration. See the PRO! Series documentation or call Mustang Software if you need additional information on operating a subscription system.

The sub-menu options perform the following operations.

### User Database Modification

[F]ind - Prompts for full user name to locate a particular user.

[S]earch - A full or partial user name is required for the search, and the sysop may decide whether or not to view each successful find. To abort a search simply answer "Y" when asked if the screen contains the user you wish to view..

[A]dd - Manual entry of a new user. This is useful for "pre-registration" purposes.

[D]elete - Deletes the current record from the database.

[P]rev - (Previous) - goes back one user record alphabetically, and follows the established search criteria set up by the Match/Set Level if being used.

[M]atch - (Match or Set Level) - permits entering a user security level as search criterion. All users matching this level are displayed one at a time. Pressing ENTER at the Match prompt resets the Match to NONE. The status of any Match/set is displayed at the top of the screen.

[W]rite message - Creates a message addressed to the user without leaving the database screen. This feature is handy for leaving notification to users advising them of updates or changes to their status. After message entry is completed the sysop is returned to the User database screen.

[ENTER] - Next alphabetical record in series, following the criteria set up by both Search and Match set, if any.

**Note:** Changes may be made to any user's record including the user who is logged in and making the changes. This was not possible in prior releases to 2.0.

### **[W] Wastebasket dump**

Results in the sub-prompt "Do you want to Delete the messages in the Wastebasket?"

This option is necessary since when a given message is deleted (erased or killed) by a user, it is not really deleted. Instead, the message is transferred to the "Y" folder (the wastebasket) where it remains until option [W] is performed either manually or automatically in an event. After the wastebasket is dumped, the space occupied by that message may be used for the equivalent amount of space in another message. See also Schedule "Y"

Note that performing a wastebasket dump does not reduce the size of your message database file MSGFILE.DAT. The space occupied by purged messages does become available for new messages, but file compression is not performed. The WCREPAIR program may be used if you find the message

database file has an inordinate number of unused purged message records as the result of a mass deletion. See the documentation for WCREPAIR in Appendix F.

### **[H] Help Level**

Refer to the [H] option discussion under MAIN menu.



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# ADVANCED FEATURES

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*"Real joy comes not from ease or riches or from praise of men, but from doing something worthwhile."*

Sir Wilfred Grenfell

## In this Chapter...

- **Creating events**  
Internal and external processes to maintain your system
- **Remote drop to DOS**  
How to set up access to DOS from remote  
What can and what cannot be run from remote
- **Doors**  
Games, and more...
- **External file transfer protocols**  
Add Kermit, or any other protocol to your system
- **Viewing compressed files**  
How to look inside .ARC, .LZH, .PAK, .ZIP, or other files.
- **Netmail (errorlevel 35 and errorlevel 60)**  
Basics of setting up a national mail network.

## Advanced Features

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### Creating Events

Many of the more advanced features of a bulletin board system depend on the proper implementation of batch files. The *WILDCAT!* event scheduler is such a feature. If you are totally unfamiliar with the batch file concept, see your DOS manual.

The event processor is used to have *WILDCAT!* perform certain tasks at predefined times during the day or evening. These tasks may range from doing system maintenance such as emptying the wastebasket to running an external utility to perform some system maintenance task. An "event" is an operation that occurs automatically from within or outside the *WILDCAT!* code, depending on how it is set up. These are commonly referred to as Internal or External events. Events automate certain activities, and if used properly can dramatically reduce board maintenance by the system operator.

*WILDCAT!* supports up to ten external events designated as events "A" through "J", internal events "X" and "Y", and a Call Processing Event at the end of each call. Events are indeed powerful and can perform a multitude of functions when creatively used.

All events are created from the system operator's menu, except for the Call Processing Event which is scheduled from within MAKEWILD. The Call Processing Event shares most of the operational features of other external events and is discussed in detail later in this section.

All other events are scheduled from the sysop menu using the [C]reate event choice. The sysop is asked to provide:

1. - The number of the event. *WILDCAT!* will automatically increment to the next number in order to help prevent accidentally overwriting an existing event.

2. - The starting time of the event. This should be entered in 24-hour format.
3. - The "tag" letter for the event. This may be a letter from "A" through "J" for external events which occur outside of *WILDCAT!*, or the letters "X" or "Y" for internal events. The letter designations for external events are for identification only, and the sysop may use any desired. The "X" and "Y" represent specific internal functions.
4. - The day of the week in which the event will occur. Take your choice from the options listed.

We will first review event tags "X" & "Y" which are the internal events and require no additional sysop intervention to function properly.

### Event Schedule X

Event schedule "X" is hard-coded into the program and is referred to as an Internal Event. It's function is to renumber all messages starting with "1" and to update the "last message read" counter for every user record in the system. It is normally run after deleting the messages in the wastebasket (event "Y"), and keeps your message count from having large gaps due to deleted messages.

This event may only be run if all other nodes in a multi-line system are down. They may not even be in another event since a return to *WILDCAT!* while the renumber was in progress could cause significant corruption of the message database.

*Schedule "Y"  
is your janitor  
and does not  
require a  
batch file to  
operate  
properly*

### Event Schedule Y

Event schedule "Y" is also hard-coded into the program. Event "Y" instructs *WILDCAT!* to purge the deleted messages from Folder "Y", the message "Wastebasket". This process does not require very much time, but like event "X", it should be scheduled to occur during a slow period of board activity.

## Event Schedules A through J

Schedules "A" through "J" are External Events which actually terminate *WILDCAT!* and perform an outside task using a batch file. Since *WILDCAT!* will actually exit to DOS, it must pass some indication to DOS of which event is to take place. This is accomplished by use of the ERRORLEVEL feature of DOS. Briefly, whenever a program terminates it has the ability to set a DOS parameter called ERRORLEVEL to any number. By convention an errorlevel is set to 0 (zero) if the program terminates normally, 1 if there is an error which causes termination, and any other number is non-classified. *WILDCAT!* makes use of this feature by setting a different errorlevel for each external event. By using the DOS error-level test command the proper event batch file can be invoked.

These functions are especially useful and must be used in conjunction with batch files which in turn call up other utilities. Although powerful, they should be carefully thought out in advance and tested during a time that the system operator is available to intervene should something go wrong.

*WILDCAT!* can set a variety of errorlevels when exiting to DOS, each of which should be used to call the appropriate batch file. Schedule "A" sets the errorlevel to 2, "B" sets it to 4, "C" sets it to 6...and "J" sets it to 20. The DOS batch file command "IF ERRORLEVEL # FILENAME" is used to test for the errorlevel and start the proper batch file. The # is replaced by the errorlevel number and the FILENAME is replaced by the batch file name to execute.

The errorlevels associated with each external event are as follows:

A	2	B	4
C	6	D	8
E	10	F	12
G	14	H	16
I	18	J	20

Notice how the errorlevel command is used in the following sample batch file. The batch file is called "CAT.BAT" and is

actually used to start *WILDCAT!* and check for an external event upon completion.

**:RELOAD** label to re-start when needed (batch labels must begin with a colon).

**CTTY CON:** direct output to console in case we are returning from a remote drop to DOS

**WILDCAT** starts the program.

Leaves  
CAT.BAT  
& starts  
BAK.BAT



**IF ERRORLEVEL 20 BAK.BAT**

calls up another batch file IF the errorlevel is set to 20, which is event "J". In this example event "J" does a backup of some kind, perhaps of the *WILDCAT!* database.

**IF ERRORLEVEL 1 GOTO RELOAD**

sends batch processing to the label **:RELOAD** if the errorlevel is set to 1, an abnormal exit due to an error or other problem.

The batch file reaches the end **ONLY** if the errorlevel is set to 0, indicating a normal exit with the F10 key.

Notice that the errorlevel tests are done from highest number to lowest number. This is NOT accidental, and is necessary since the DOS test for errorlevel returns either a True or False depending on whether the actual errorlevel is EQUAL TO OR GREATER THAN the number tested. Under the circumstances, testing for errorlevel MUST be done from highest to lowest possible numbers.

*Notice that  
errorlevel tests  
are done in  
highest to  
lowest order*

Lets take a look at the batch files that are called by the CAT.BAT file when an event is detected in the errorlevel test.

The following is the possible contents of BAK.BAT in the previous example.

**COPY \*.DAT \WILDCAT\BACKUP**

copies all of the .DAT files to a subdirectory of *WILDCAT!*

**CAT.BAT**

restarts *WILDCAT!* again using the CAT.BAT batch file. Each Event batch file MUST terminate with this command!

*To return to WILDCAT! after an event you must again call the file CAT.BAT to properly re-start the program.*

This event "J" might be set to operate every night to keep a constant backup of all of the database files used by *WILDCAT!*

Other external events may be set up to run utility programs such as the PRO! series. The key to remember is that CAT.BAT must test for the errorlevel that corresponds to the event tag letter; 2 for A, 4 for B, 6 for C and so on up to 20 for J. Then create the appropriate batch file name to perform the event task and make sure that it calls CAT.BAT as the final command.

## **Call Processing Event**

The final topic under the category of external events is the special event which may be run after each and every *WILDCAT!* call, the Call Processing Event. Makewild allows the errorlevel to be set to 60 after each call in the General Information Part 2, question 1. If set to "Y", *WILDCAT!* will terminate after each call and allow your CAT.BAT file to test for errorlevel 60 and run some support program. This feature is included to allow sysops with special application needs to create their own programs to perform some action, often a NetMail or EchoMail "front end program". The operational procedure is exactly the same as that for events A through J except that the batch line test must be for errorlevel 60.

If you intend to offer NetMail and/or EchoMail, review the appropriate heading later in this chapter.

## **Event Timing and Forced Operation**

Since many Events are time dependent, *WILDCAT!* does everything in its power to ensure an Event takes place on schedule. *WILDCAT!*'s timetable and handling of calls during the period immediately preceeding an event is as follows:

- *More than 120 minutes before an event:*

No notification of the pending event to the caller, and no action take to reduce the caller's time, even if the caller is allowed in excess of 120 minutes per call.

- *120 minutes to 21 minutes before an event:*

The caller is notified of the pending event, and his time allowed online is reduced if necessary. Uploads via external protocols are disabled. Forced logoff takes place 3 minutes prior to the event. External protocols are disabled at this time to prevent a caller from beginning an upload of unknown length, and having *WILDCAT!* miss the event. Remember, *WILDCAT!* can't watch the clock during an external protocol since it is not in memory.

- *20 minutes to 9 minutes before an event:*

The caller is notified of the pending event, his time allowed online is reduced, and he is asked if he wished to continue the logon process. Uploads via external protocols are disabled. Forced logoff takes place 5 minutes prior to the event.

- *8 minutes to 1 minute before an event:*

No calls accepted, the phone should be off-hook.

The forced logoff takes place regardless of the caller's activity. It will be preceded by a two minute warning, but takes effect even if the caller is in the midst of a download. This is in contrast to the forced logoff for time expired when an event is not pending, where a download is allowed to be completed prior to logoff.



## **REMOTE DROP TO DOS**

The ability to access the Disk Operating System from a remote connection is one of the most exciting aspects of telecommunications. This function, like external events, cannot operate properly unless *WILDCAT!* has been started with a properly designed CAT.BAT file. When this function is selected by a remote sysop, *WILDCAT!* will perform a number of actions to prepare for DOS access. All *WILDCAT!* files are closed and the errorlevel is set to 40 for testing by CAT.BAT.

*WILDCAT!* then exits and passes control back to the batch file which invoked it (our example to this has been CAT.BAT).

Proper execution now depends on CAT.BAT having the line `IF ERRORLEVEL 40 DROPDOS.BAT`. Assuming this is so, processing will be passed to DROPDOS.BAT. The contents of DROPDOS.BAT must redirect the system output and input to the correct communications port.:

<b>CTTY COM1</b>	changes the standard input/output devices from the keyboard and screen to the COM1 port. COM2 is also valid if used.
------------------	--

The above example makes use of the program CTTY supplied with DOS to perform redirection. In reality, many IBM compatible computers are unable to perform redirection using this command. In these cases it is often necessary to use a redirection program written by a 3rd party to handle this process. Programs such as GATEWAY and DOORWAY may be used, and are shareware products available on many BBS systems, including the registered BBS at Mustang Software. They function in much the same way as CTTY, but will often work even on computers where CTTY fails to properly redirect the text.

To determine if you need an alternative to CTTY, have a trusted caller try a remote drop to DOS and watch your LOCAL monitor. After the DROPDOS batch file executes, see if you can still enter commands locally such as DIR. If you are able to use the local keyboard, then redirection did not take place.

*The proper  
method of  
returning to  
WILDCAT!  
after a remote  
drop to DOS  
is to execute  
CAT.BAT*

When properly executed, the computer will be told that all future input (keypresses) and output (screen displays) should be re-routed to the COM1 port. This results in the remote sysop or caller receiving the DOS prompt C: (or whatever). Before we go any further we need to know how to return to *WILDCAT!* after a remote drop to DOS. To reverse the input & output we need to again redirect I/O, but this time to the standard keyboard and monitor. DOS calls these the CONSOLE, or CON for short. We need to execute the command CTTY CON, which changes the input/output from the COM1 back to the keyboard and screen. However, what we really want to do if calling in from remote is to re-start *WILDCAT!* and change things back at the same time. This is accomplished by issuing the CTTY CON command automatically as the FIRST command in CAT.BAT whenever it is called. That way a sysop in remote mode can simply change to the *WILDCAT!* subdirectory and type CAT.BAT to change the output back and start the program. Lets take a look at a yet more complex CAT.BAT file to accomplish proper Remote Drop to DOS:

<b>:RELOAD</b>	label to restart program
<b>CD \WILDCAT</b>	assures that we are in the right directory for starting <i>WILDCAT!</i>
<b>CTTY CON</b>	Redirects input/output to the keyboard and screen if it has been changed by DROPDOS.BAT
<b>WILDCAT</b>	starts <i>WILDCAT!</i>
← <b>IF ERRORLEVEL 40 DROPDOS.BAT</b>	calls up another batch file which redirects input/output to the COM port and allows remote drop to DOS.
← <b>IF ERRORLEVEL 20 BAK.BAT</b>	calls up another batch file if the errorlevel is set to 20, which is event

Leaves  
CAT.BAT  
runs  
DROPDOS

Leaves  
CAT.BAT  
runs  
BAK.BAT

“J”. In this example event “J” does a backup of some kind, perhaps of the *WILDCAT!* database files.

#### **IF ERRORLEVEL 1 GOTO RELOAD**

sends batch processing to the label RELOAD if the errorlevel is set to 1, an abnormal exit due to an error or other problem.

The batch file reaches the end ONLY if the errorlevel is set to 0, indicating a normal exit with the F10 key.

As you can see, if DROPDOS.BAT is executed, the sysop must manually restart CAT.BAT to return to *WILDCAT!* Looking back at the CAT.BAT batch file, one of the first commands is to re-direct output to the CON or screen in case it is needed, which it will be after a remote DOS session.

Since this is the first example of a user (or the sysop) returning to a previous *WILDCAT!* session, we will undertake a short discussion of the “inside” operation that allows this re-connection.

When *WILDCAT!* prepares for remote drop to DOS or a door, it is done with every intention that the caller will be returning to *WILDCAT!* after the door or remote task is completed. As a part of the preparation it creates a file named CALLINFO.BBS which contains information about the caller and system status. This file is available to the door program for identification of the caller, and is necessary for the user to return to *WILDCAT!* properly. After a proper return, CALLINFO.BBS is erased. It should never be present on your system unless a caller is currently in a door or drop to DOS.

As the user returns to *WILDCAT!* (using CAT.BAT from DOS or from a door batch file calling CAT.BAT), *WILDCAT!* will load into memory and should find that the modem shows carrier is detected since the caller is still connected. Whenever carrier is detected on startup, *WILDCAT!* checks to see if

CALLINFO.BBS also exists. If so, carrier will be maintained and the name in CALLINFO.BBS will be logged back into the system. If CALLINFO.BBS does not exist, then *WILDCAT!* attempts to lower carrier before setting up the system. During the return from a door or remote drop to DOS a user is asked to verify his identity with his password ONLY if the program is answering the phone using modem auto-answer. If ring detect is being used (auto-answer is disabled), there will be no prompt for password since there is no possibility that the caller is other than the person listed in CALLINFO.BBS.

### Using Remote Drop to DOS

Due to the method in which the characters are transmitted over the COM port, many usual DOS and program functions are unavailable while connected to DOS from remote. Programs that use other than DOS function calls for video display or other processing will not usually function, and will cause a system lock-up. These include BASIC, almost all Word Processors (due to the direct video display), almost all games unless written specifically for COM port use, and a majority of commercial programs. The purpose of this option is to allow a sysop to make direct modifications to small files, directory structures, move files and check DOS status. CAUTION IN USE IS AN ABSOLUTE NECESSITY.

**Using DOORWAY or GATEWAY can extend the system's abilities while operating from remote, and is strongly recommended. Follow the instructions with the program for best results, and don't forget to register your copy with the author.**

Yet another alternative is the use of commercial programs such as Carbon Copy or PC Anywhere which allow operation of virtually any program from remote. These programs can be connected to *WILDCAT!* as doors or invoked from remote DOS access, and then *WILDCAT!* can be restarted after completing the session.

Mustang Software, Inc. cannot assist in the troubleshooting of system problems related to operation of the CTTY command used in remote DOS operation. We will be happy to review

a batch file process or other DOS implemetation on the *WILDCAT!* HQ BBS system.

## **A Final Note**

A common misunderstanding is that Remote Drop to DOS is related in some way to the ALT-D or Local Drop to DOS. As indicated previously, Local Drop to DOS operates by leaving *WILDCAT!* in memory (or dumping it to disk) and starting a second version of DOS which is made available. The EXIT command then returns to the original *WILDCAT!* DOS and program. Activation of Remote Drop to DOS actually causes *WILDCAT!* to remove itself from memory and connects the caller to the system by having the computer look at the COM port as it's keyboard or input device. Remote Drop to DOS is terminated with a restart of the CAT.BAT batch file.

### DOORS

A Door is a feature which allows *WILDCAT!* to run specific programs from outside the program code. Doors can be written specifically to operate in a door environment or may be designed to operate under the redirection of CTTY, DOORWAY or GATEWAY. Again, CTTY is not recommended for door operation.

When Mustang Software originally researched the state of door handling in a BBS system, we discovered that there was no standardized method of setting up for this external program operation. The Capitol PC User Group's program RBBS-PC handles this feature using a specific, defined format which is unique to RBBS-PC. There are many programs written which take advantage of the RBBS-PC format. Other BBS programs use yet other methods of passing parameters to the door programs. In fact, many use a number of different, incompatible methods depending on the version of the BBS that is in use. In an effort to standardize the door environment, *WILDCAT!* has contacted authors of RBBS and a number of door authors. We have reviewed the needs of this type program and established what we hope will be molded into a standard ASCII record for passing parameters for the door feature. The record criteria for this ASCII file, CALLINFO.BBS, is included in Appendix H. This file is created and deleted by the system and usually will not be seen on your disk.

Although a large number of *WILDCAT!*-specific doors have been developed, Mustang Software, Inc. does not write any door programs. We have made provisions to allow *WILDCAT!* to run many of the extensive number of doors already available for most other BBS systems. The only door distributed with *WILDCAT!* is DOORTEST which is a simple test program that will verify your batch file and configuration settings. We will review the setup of DOORTEST to familiarize you with standard door operation. All DOORTEST does is echo back the name of your BBS System and allow the remote caller to type a test message on the

screen. If it operates properly your procedural parameters and hardware are working correctly and other programs can be installed. We refrain from distribution of other door programs since most are products of other shareware authors who may have distribution restrictions. Many of the more popular choices are available on the MUSTANG SOFTWARE *WILDCAT!* HQ PRIVATE BBS as well as other *WILDCAT!* BBS systems.

## Door Implementation

Doors are started by a caller by selecting the Main Menu command [D]oors. This presents the display file DOORS.BBS (or DOORS.SCR) which should be created to contain the choices available, much like the Bulletin menu BULLET.BBS. In order for this feature to function, ***WILDCAT!* must find DOORS.BBS in your path for doors** designated in MAKEWILD. The caller then selects a number choice corresponding to the program they wish to run. This number is the key to which batch file is invoked by *WILDCAT!* since a batch file named DOOR#.BAT will be executed.

**Batch files for the doors available must be located in the *WILDCAT!* startup directory, the same area where MAKEWILD was run and where CAT.BAT was started.**

The actual behind-the-scenes processing by *WILDCAT!* from this point is important for a complete understanding of door operation. At the point that a program is selected by a caller, *WILDCAT!* creates an ASCII file named CALLINFO.BBS that contains complete information about the caller who invoked the door. *WILDCAT!* then makes a copy of the requested door batch file (perhaps DOOR1.BAT) under the new name DOOR.BAT. This "generic" name is the actual batch file name executed later. *WILDCAT!* then sets the errorlevel to 50, terminates and removes itself from memory. You will note that this is the same process used in remote drop to DOS and external events. The balance of a successful door operation rests with the proper batch file configuration.

The first requirement is that the CAT.BAT file tests for error-level 50 to see if a door has been requested. If so, it must pass

control to the batch file DOOR.BAT, our “generic” name which is now the same as the door requested by the caller. As indicated previously, DOOR.BAT is simply a copy of DOOR#.BAT for the correct # door that has been requested.

For each available door the sysop must have created a batch file to run the program, including any conversion routines required. For example, if door #1 is DOORTEST then the batch file that is copied to DOOR.BAT for execution is DOOR1.BAT, and it must contain every command needed to run the door from the instructions give by the door author.

Lets take a look at DOORTEST now. In order for proper operation it needs a configuration file, like many other doors you may encounter. It does not require any conversion programs since it was written specifically for *WILDCAT!*, and knows how to read the CALLINFO.BBS file directly. Later in this section we will review procedures for doors which cannot read our CALLINFO.BBS file, and how to perform a conversion.

The configuration file required is named DOORTEST.CFG, and is a plain ASCII text file of three lines. Line one must contain the number of your com port as a numeric character such as 1, 2, 3, 4, etc.. Line two must contain the complete name of your caller information file (CALLINFO.BBS), including the entire path. Remember that CALLINFO.BBS is located in your startup directory, so this line might read C:\WILDCAT\CALLINFO.BBS. The third line in the configuration file should be the name of your BBS system. An example DOORTEST.CFG file would be:

**2**                                      Your communication port number

**C:\WILDCAT\CALLINFO.BBS**

The complete name of the call information file, including the full drive and path.

**Mustang Software Private BBS**

The name of your BBS system

Once we have created the configuration file we can continue setting up the batch file to invoke our test door. We will



assume that the test will be door number 1 in the door menu file (DOORS.BBS), and will call our file DOOR1.BAT. The command line for starting the DOORTEST program is simply the program name DOORTEST followed by the name of the configuration file DOORTEST.CFG. Our batch file looks like this:

#### **DOORTEST DOORTEST.CFG**

This is the actual program. The command line argument DOORTEST.CFG is a text file containing information needed by DOORTEST to operate properly. It includes three lines with the COM port number, the path to the CALLINFO.BBS file and the BBS name.

#### **CAT**

This invokes your startup batch file after the door has completed. CAT.BAT is then responsible for getting *WILDCAT!* back on line properly.

When the above batch file is executed the door program runs and then the CAT.BAT file is called to re-start *WILDCAT!*. Every door program operates in a similar manner, and each must call CAT.BAT at the end to restart the BBS.

Since our DOOR.BAT has called CAT.BAT it's now up to *WILDCAT!* to determine if it is returning from a door or it is just a fresh startup of the program. It accomplishes this by first checking for the existence of carrier detect (to see if someone is connected), and then for the CALLINFO.BBS file. If carrier is present, it then checks for the file, and if both exist *WILDCAT!* assumes that this is a return from a door, and reads CALLINFO for the callers name. It then deletes CALLINFO.BBS and reconnects the user.

During the return from a door a user is asked to verify his identity with his password ONLY if the program is answering the phone using modem auto-answer. If ring detect is being used (auto-answer is disabled), there will be no prompt for

password since there is no possibility that the caller is other than the person listed in CALLINFO.BBS.

If Carrier Detect is not present but CALLINFO.BBS exists, it is erased after first charging the user for his time in the door, since he obviously was disconnected or hung up inside the door program. If Carrier Detect is found without CALLINFO.BBS, WILDCAT! attempts to lower it and complete initialization normally.

Keep in mind that a return to *WILDCAT!* from a door requires a complete startup of the *WILDCAT!* program, including everything contained in your CAT.BAT file. In order to minimize this return time we encourage you to place the minimum amount of commands necessary in CAT.BAT. If you need to establish RAM disks or copy files to different locations to establish your operating environment, it is suggested that these other activities be carried out in an AUTOEXEC.BAT file rather than in CAT.BAT.

As mentioned earlier, there are many doors written for other BBS program environments. In order to operate these door programs, the sysop needs a conversion utility which creates the required system files for the other BBS program from our CALLINFO.BBS file. The private registered WILDCAT! BBS contains up-to-date conversions for all other BBS door programs. The proper use of these utilities is included in a documentation file with the conversion program. It usually consists of an additional line in the door batch file consisting of the conversion program name, such as WC2RBBS, which creates a configuration file for RBBS-PC from our CALLINFO.BBS file.

## CAUTIONS, CONCERNS AND CAVEATS !

The above explanation of doors is simplified and assumes that no problems are encountered. In actual operation a number of events may occur that interrupt either the remote user's connection or the batch file operation. Both of these circumstances could cause problems ranging from a locked-up system to a serious security breach if not handled properly.

This section deals with methods to protect your system and its users from such problems.

## **Carrier Detect Monitoring**

The first possible problem to overcome is that of a caller who drops carrier during a door. This could cause the door program to sit idle indefinitely! Unless the door is watching the carrier detect status, a locked system could result. All reputable door programs monitor CD as part of their operation, and automatically terminate when carrier is lost, returning control to the batch file which will then call *WILDCAT!*. This is the best protection available. In the event that a door does not handle this chore, you should think twice about running it! Although there are several utility programs which will monitor carrier and reboot if CD is lost, we recommend against their use since a system reboot is not desirable just because someone drops carrier. Users quickly discover that they can drop carrier at the end of a door to keep the time spent in the door from being subtracted from their daily time allotment.

## **Ctrl-Break and Ctrl-C Lockout**

The second obstacle to be overcome to successfully run doors involves securing your batch files from interruption, either intentionally or otherwise. Most users are familiar with the use of CTRL-BREAK or CTRL-C to prompt for termination of a batch process. Allowing a remote caller to do this during execution of a door could be a catastrophe! Remember that every door makes use of a batch file, one that must be protected from the use of Ctrl-break. Fortunately most doors are specifically written to direct their own input and output to the communications port, and may not be interrupted.

*WILDCAT!* includes internal code to automatically disable the use of CTRL-C and CTRL-Break when it is started. These keystrokes are not enabled again until *WILDCAT!* is terminated with the F10 key. This means that you are automatically protected from breaking out of a batch file UNLESS the program you run as a door re-enables the keystrokes.

Although there are other programs that offer this protection such as BRK.DRV, we have found that incompatibilities exist when they are run in conjunction with the internal WILDCAT! disabling code. Use of BRK.DRV is discouraged.

Another possible problem when making use of DOORS is the situation that develops when the DOOR.BAT file is not located, or is not run for some other reason. In this case the errorlevel is properly set to 50, but CAT.BAT doesn't branch off to DOOR.BAT. It then continues and the next errorlevel test (IF ERRORLEVEL 40) gets verified as TRUE since the actual level of 50 is equal to or greater than 40. To guard against this happening on your system, and giving a caller access to DOS, you need to insert an errorlevel test to prevent it. Adding

```
IF ERRORLEVEL 41 GOTO RELOAD
```

will restart WILDCAT! if the DOOR.BAT fails for any reason.

Lets look at an example of the above precautions in action. The expanded CAT.BAT file may look something like the one listed on the following page:

- :RELOAD**                      label to restart
- CD \WILDCAT**                assures that we are in the right directory for starting *WILDCAT!*
- CTTY CON**                    Redirects input/output to the keyboard and screen IF it has been changed by DROPDOS.BAT
- WILDCAT**                      starts *WILDCAT!*
- IF ERRORLEVEL 50 DOOR.BAT**  
                                  calls up the door program (checking remains turned ON for Ctrl-C and Ctrl-break).
- IF ERRORLEVEL 41 GOTO RELOAD**  
                                  sends processing to the label RELOAD if the errorlevel is higher than 41 (if the DOOR.BAT fails).
- IF ERRORLEVEL 40 DROPDOS.BAT**  
                                  calls up batch file which allows remote drop to DOS.
- IF ERRORLEVEL 20 BAK.BAT**  
                                  calls up batch file for event "J". In this example event "J" does a backup.
- IF ERRORLEVEL 1 GOTO RELOAD**  
                                  sends batch processing to the label RELOAD if the errorlevel is set to 1, an abnormal exit due to an error or other problem.

Remember that the processing never gets to the last line unless the sysop has used F10 to exit *WILDCAT!* normally.

### User Verification on Return to WILDCAT!

The last item of concern when operating doors has to do with the possibility of a person other than the original caller getting on the system at the close of a door.

The problem arises if the sysop has set MAKEWILD and the modem to auto answer, either by dip switches or a software command such as ATSO=1. In that case the original caller could have been disconnected during the door for some reason, and anyone could have called in after the disconnect but before WILDCAT! re-cycled. This is a period of perhaps 10 seconds or more depending on the length of CAT.BAT and modem delays. The modem would answer the phone and then establish carrier for the new caller. Now we have a situation where WILDCAT! comes to life, finds a carrier present and then looks for CALLINFO.BBS and finds it as well. WILDCAT! then assumes that the original caller whose name is in CALLINFO.BBS is returning, but we know better....

To prevent security problems in this regard, WILDCAT! will always ask for the user's password if MAKEWILD is set to answer the phone by auto-answer. If ring detect is being used rather than auto-answer, no password is requested on return from a door since no other caller could have established a connection.

To avoid any possible security problems, Mustang Software strongly recommends that sysops who implement doors only do so if they are answering phone by ring detect. Forcing WILDCAT! to answer the phone by ring detect (internal monitoring of pin 22) assures that the modem will not acknowledge any new callers since it won't even look at pin 22 until after checking for a return from a door.

### Door Technical Support

One final note about doors. Due to the differences in setup and configuration of this feature for each door, we must limit our technical support calls to problems with the WILDCAT!

interface only. This means that the we are unable to extend advice on specific door operation or hardware system configurations. We will assist in configuration of the DOORTEST program but after proper operation of DOORTEST, the responsibility for installation and operation of specific programs rests with the user. We make NO commitments that any door program will run properly on your system. Each door operates differently and may require a conversion program, special device driver, basic run time module (BRUN40, etc.), or other type of manipulation to operate.

Some versions of DOS, in combination with some IBM compatible hardware, do not function properly with the CTTY command or with some doors. THIS IS A DOS/HARDWARE PROBLEM, AND NOT A FLAW IN THE WILDCAT! PROGRAM.

Questions on specific doors should be directed to the program author. We encourage program authors to contact Mustang Software for program configuration advice and possible testing of their product within our beta group.

We suggest that sysops making use of this feature call the *WILDCAT!* HQ BBS and interact with the special message folder and file area devoted exclusively to doors.

### EXTERNAL PROTOCOLS

This option is designed to allow implementation of file transfer error-checking protocols written by outside sources. Examples are KERMIT, used for transferring files between many different types of systems, and ZMODEM, used for speed and batch transfers. Note that an external protocol is not allowed as a choice for a user's default protocol since a user's record could reflect a transfer method that may no longer be available if a protocol was removed or changed. Those users wishing to take advantage of external protocols should set their default to allow selection of a protocol at the time a download is initiated.

Not all external file transfer protocols are capable of sending multiple files in a batch mode. Each protocol is defined as either batch or non-batch during its definition in MAKEWILD, and the caller is prompted for one or more filenames accordingly.

### Operational Overview

When a user selects an external protocol, perhaps [Z] for Zmodem, the user is prompted for the name of the first file to be sent. After checking the filename for validity *WILDCAT!* copies the file from its regular directory to the path reserved for external protocols as specified in MAKEWILD. As each requested file is copied to the temporary transfer area, it is checked against the user's usual download limitations and also the disk space available in the transfer area. As each additional filename is requested, a copy of the file is made in the external protocol subdirectory. This duplication of the file in the external transfer directory allows all transfers to be made directly from that subdirectory, without specifying a full pathname. This reduces the length of the command line and allows up to seven files to be sent, if desired. If a non-batch protocol is used only a single filename is requested and there is no danger of exceeding the command line limit.



Since copies of all all of the files to be sent to the user are made in the external protocol directory, each protocol may complete the transfers necessary with no pathnames required. This is necessary since batch transfer of 7 files with full pathnames would almost always exceed the DOS command line limit of 128 characters.

After the transfer is completed the transferred files in the external protocol directory are erased by *WILDCAT!*. An additional advantage of using the external transfer directory to hold the files is increased security, since external protocols may only transfer files which are contained in the protocol area.

## Batch File Creation

*WILDCAT!* allows up to 10 different external protocols to be established. For each the sysop must have first obtained a copy of the appropriate file transfer program such as PCKERM-IT.EXE or ZMODEM (part of DSZ.COM or DSZ.EXE). The next step is to establish the batch files for passing parameters to the transfer program as needed. The actual contents of these batch files will depend on the specific protocols, but usually includes the program name with several command line arguments. Before we go into the actual creation of the batch files, lets spend a minute or two discussing what *WILDCAT!* does to prepare for an external file transfer.

When an external protocol is selected, *WILDCAT!* performs an exec call or shell. This invokes a second copy of the command processor (usually COMMAND.COM), and leaves *WILDCAT!* resident in memory, unless the sysop has specified that a swap to disk or EMS should be made. If a swap to disk or EMS is not performed, it is important to make sure that you have enough available memory after the shell to invoke your transfer program. *WILDCAT!* displays the memory available on screen immediately after starting the shell procedure.

Upon exit to the newly created DOS shell *WILDCAT!* passes at least three parameters to the DOS environment in the form of variable batch parameters. These parameters are available to a batch file through the use of the % batch command,

and consist of the baud rate, communications port and the filename to send or receive. These three pieces of information are needed by most transfer programs. They are assigned to DOS batch commands %1 through %3 respectively.

The baud rate is passed as %1, and is a number 300, 1200, 2400, 9600, or 19200. The communication port is passed as %2, and is an integer 1, 2, 3, or 4. The filename is passed as %3 with no leading or trailing spaces, and only the name (not the full path) is passed. In the case of multiple file downloads, additional batch parameters %4 through %9 also contain filenames for transfer.

Refer to your DOS manual for details on use of the % command if needed.

### Download Example

The batch files controlling both downloads and uploads must be located in the external protocol directory as specified in MAKEWILD. A typical batch file for ZMODEM download might look something like this:

```
CD \WILDCAT\EP           makes sure that we are in the
                           external protocol directory.

DSZ port %2 speed %1 sz %3 %4 %5 %6 %7 %8 %9
                           starts the DSZ program and
                           tells it which port, speed and
                           the filenames to use

IF ERRORLEVEL 1 COPY ALL.OK TRANSFER.BAD
                           test for standard "aborted"
                           errorlevel to indicate bad
                           transfer
```

The translation of the above goes something like this. The first line changes to the directory where the transfer is to take place, the external transfer directory. Although we are already in that directory this is done to ensure that we are in the correct location. This directory is also the location of this batch file and the DSZ protocol program. Remember that this path is configurable in MAKEWILD.

In the second line the DSZ.COM or DSZ.EXE program is given the command line arguments as follows:

The word **port** is required by DSZ and is followed by the number of the communication port, 1 - 4. You may either follow it with the parameter %2 which WILDCAT! has set to your port as indicated in MAKEWILD, or you may save a space and enter the actual number such as 1. If you will never change your com port number you may want to use the number 1 or 2, but using %2 will ensure proper translation even if you change communications ports.

The next word **speed** is also part of the requirements for DSZ, and is followed by the speed of the call. The speed is available in the parameter %1, and must be used since each call will vary. WILDCAT! knows the speed of the caller's modem and has loaded the %1 parameter accordingly.

Note that DSZ requires the words "port", "speed", and "sz" to be in lower case letters. It will not operate properly if capital letters are used.

The characters **sz** are short for send using zmodem and are followed by the filenames to send which are %3 - %9.

The last line in the batch file is used to help WILDCAT! determine if the file transfer was successful or not. In order for the success or failure of the download to be known this line must be included. The sysop should create a text file in the external protocol directory named ALL.OK which may contain anything, just so it exists (a space or C/R will do fine). If the transfer is not successful, most external protocols set the errorlevel to 1 or higher. In the event of an unsuccessful transfer with an errorlevel set to 1 our errorlevel test will copy the dummy file ALL.OK to a file named TRANSFER.BAD. After each external transfer WILDCAT! looks for TRANSFER.BAD in the external protocol directory. If it is found, the transfer is posted as unsuccessful to the ACTIVITY.LOG and the user is not charged with the download. Just prior to beginning each external transfer WILDCAT! erases the previous copy of TRANSFER.BAD, if it was present, to guarantee that it does not exist at the end unless created by our errorlevel

test. Note that *WILDCAT!* looks for TRANSFER.BAD in the protocol subdirectory **only**.

**CHECK YOUR PROTOCOL DOCUMENTATION:** Each external protocol will have different command line arguments and may use the parameters in another order, with or without the words “port” & “speed”. There is no substitute for reading the protocol documentation.

At the end of an external protocol transfer, program control will automatically return to *WILDCAT!*. There is no need to call CAT.BAT or EXIT, and the path is automatically reset to the *WILDCAT!* startup directory, eliminating the need for a directory change in your batch file.

### Upload Example

Uploads using external protocols are handled in a slightly different manner, and multiple file transfers are not permitted. At the time of the upload the caller is asked for the name of the file to upload followed by the file area where the new upload should be placed. A caller may choose from any file area to which he has upload rights as specified by his security level in MAKEWILD.

The previous batch parameters of %1 through %3 are used for the same purposes, but since only one file may be uploaded it is always the %3 parameter. The %4 parameter is assigned to the full drive and path of the file area to receive the new file, and %5 is the full drive, path plus the new filename. As an example of these two new parameters lets assume a caller is uploading a file named NEWFILE.TXT to file area “E”. Lets further assume that file area “E” is located in C:\WILDCAT\UPLOADS. The parameters passed as %4 and %5 are as follows:

%4	C:\WILDCAT\UPLOADS
%5	C:\WILDCAT\UPLOADS\NEWFILE.TXT

Now lets look at a sample upload batch file and review it's contents.

<b>CD \WILDCAT\EP</b>	makes sure that we are in the external protocol directory
<b>DSZ port %2 speed %1 rz %3</b>	runs the DSZ program with command line arguments as required
<b>COPY %3 %4</b>	copies the new upload (%3) to the file area chosen by the caller (%4).
<b>DEL %3</b>	deletes the upload from the temporary external transfer area

Again, the translation goes something like this. First we change to the subdirectory where all of our external protocol activity takes place, just to make sure we are there.

We then start the “receive” with DSZ followed by the command line parameters **port %2 speed %1** just as we did for starting downloads. The **rz** indicates we want to receive using zmodem, and is followed by the filename which will be sent to us.

After the file %3 has been received (lets assume the caller sent NEWFILE.TXT), we still have to get it to the right file area on our disk. Although there are several ways to accomplish this, we suggest copying the file to the correct location and then deleting it from the protocol subdirectory. This method allows use of multiple drives for uploads. The last two lines of the batch file complete the move of the file to the proper area as desired. If our fictional upload NEWFILE.TXT was to be placed in area “E”, which is designated as C:\WILDCAT\UPLOADS, then the batch file parameter %4 would be C:\WILDCAT\UPLOADS, and the %5 parameter would be C:\WILDCAT\UPLOADS\NEWFILE.TXT.

The final lines of our batch file then translate to:

```
COPY NEWFILE.TXT C:\WILDCAT\UPLOADS
DEL NEWFILE.TXT
```

The main caution necessary using this method is that there must be enough disk space available for 2 copies of the uploaded file for the copy and delete to function.

Uploads do not require an errorlevel test to determine if the file transfer was successful since *WILDCAT!* will look for the newly uploaded file in the area specified by the caller and assume success if it is located and failure if it is not located. The %5 parameter is not used for most operations, but represents the full filename which must exist for the upload to be considered successful.

One specific external protocol is handled differently by *WILDCAT!* when it is selected by a caller. **BIMODEM** is a protocol capable of upload, download, and chat simultaneously, and is operationally different from others. If the sysop sets up a protocol in MAKEWILD and names it "BIMODEM" (regardless of the letter used to select it), *WILDCAT!* will not ask the caller for any filenames, but will immediately "shell" to the batch file set up for the protocol. BIMODEM may then make use of its interface for file selection and other activity. If the sysop allows password protected files in the database, a utility program PASSWORD.EXE will create a text list of your protected files which is readable by BIMODEM named PASSWORD.TXT. It is the responsibility of the sysop to run PASSWORD.EXE from the startup directory and place the .TXT file in the proper area for checking by BIMODEM. Since the creation of the password file may take some time on a large database, it may be run as an event on a daily basis if desired.

As is the case with doors, external protocols are not routinely distributed with *WILDCAT!* Many are available on the private Mustang Software *WILDCAT! HQ* BBS. You may find that a release of the popular bi-directional protocol BIMODEM is included on your SUPPORT diskette. If included, it should be extracted using the *WILDCAT! INSTALL* program. Note that these two programs are NOT products of Mustang Software, and questions should be directed to the

individual authors as indicated in the BIMODEM and BICAT documentation.

### VIEWING COMPRESSED FILES

The [V] selection on the files menu supports a feature which allows looking into files which have been compressed and combined using utility programs to create files ending in .ARC or .ZIP, etc.. This is accomplished by having *WILDCAT!* run an appropriate un-compressing program and send the output to a file for display to the caller.

It operates in much the same manner as external protocols in that a "shell" to another copy of the command processor is initiated, and a CALLINFO.BBS file is created with information on the current caller. Use of this feature must only be considered after completely reading the preceding sections regarding batch file security and the associated warnings.

When [V] is selected *WILDCAT!* will suspend it's operation, shell to another copy of DOS, and initiate a batch file named VIEWCOMP.BAT. This batch file must be located in the *WILDCAT!* startup directory, the one where CAT.BAT operates and where the MAKEWILD configuration is stored.

As it calls the file VIEWCOMP.BAT it passes the batch variable %1 to the batch file for its use. This variable contains the complete drive, path and filename of the .ZIP (or whatever) file to be processed as selected by the caller. If you are unfamiliar with the %1 parameter in batch files refer to your DOS manual.

The contents of VIEWCOMP.BAT should look similar to this:

```
PKUNZIP V %1 > VIEWCOMP.DAT
```

This example makes use of the DOS command ">" to redirect the output of the command to a location other than the screen, in this case the file named VIEWCOMP.DAT. No CTTY command is necessary when this method is used. This command results in PKUNZIP performing a view into the filename represented by the %1 parameter, and sending the output to a file named VIEWCOMP.DAT rather than to the computer screen.



Immediately after executing the above single line batch file, program operation is automatically returned to *WILDCAT!*. As soon as the program regains control *WILDCAT!* displays the contents of VIEWCOMP.DAT to the caller, using screen pauses as necessary.

Any program may be used to accomplish the “peek” into the compressed file, as long as it is capable of handling the compression method used on your system. Several shareware programs are available which can un-compress multiple formats, including .ARC, .PAK, .ZIP, and .ZOO. Our example uses PKZIP/UNZIP by PKWARE, Inc.

Although this feature was designed to allow use of the compression listing programs, a little imagination will reveal other possible applications. A change to the name of the menu choice will allow a sysop to call it whatever he wants and pass a filename to any program or other batch process.

### **NetMail and EchoMail**

*WILDCAT!* is capable of providing integration to a variety of NetMail and EchoMail systems. The most common and widely know is FidoNet, an international network of personal computers organized and set-up by Tom Jennings a number of years ago. It is an all-volunteer network and literally covers the globe. Although several other message networks have become popular in recent years we will use FidoNet as the example in our NetMail discussion.

In order for *WILDCAT!* to recognize and communicate with an external mail network, the sysop must make use of a "Front-End Program". This program is used to answer the phone in place of *WILDCAT!* to determine if a call is intended for the mail system or is a BBS caller. Calls from other NetMail systems containing messages are processed by Front-End Program, while BBS callers are passed on to *WILDCAT!*.

The newly received messages are processed and placed in a special message format for reading by the sysop, or even by other BBS callers.

NetMail messages may be public or private, and are addressed to a specific BBS or dedicated mail system. The addressing scheme used for NetMail consists of a Region number, a Net number, and a Node number in the format 1:206/2901 (Mustang Software, Inc.'s address).

EchoMail is slightly different from NetMail. It consists of a series of public messages gathered from many other BBS and mail systems across the country who share a common message topic, such as the National WILDCAT! Echo. Each night new messages from every system are sent to a central repository (via several links), and each system receives the new messages from every other participant in the echo. All echo members end up with a common message pool which is kept current within a few days.

In order for a front-end program to pass control to the BBS when a non-mail call is received, there must be a method of

informing *WILDCAT!* of the caller's baud rate. This is accomplished through the use of a command line argument in the format:

**WILDCAT /B 1200**

The baud rates acceptable are 300, 1200, 2400, 9600 and 19200. If the caller is making use of a "reliable" connection, one using MNP, ARQ, or other hardware error control, this number should be immediately followed by the letters MNP. If the baud rate is passed on the command line to *WILDCAT!*, it will connect to the already existing caller and begin the login process. After the call is completed it is customary to return control to the front-end program through the use of the Call Processing Event (errorlevel 60).

Another option supported in the /B command line parameter is passing the number of minutes until the next mail event scheduled by the front-end program. Mail events are commonplace and **MUST** take place at the scheduled time. *WILDCAT!* uses this number to adjust the caller's time allowed on the system during his call. The format for passing the time along with the baud rate is an integer which follows the baud rate, delimited by a space:

**WILDCAT /B 2400MNP 65**

The above example indicates that the caller being passed to *WILDCAT!* is connected is at 2400 baud, is using MNP (or similar) error control, and the front-end mailer needs to begin a mail processing event in 65 minutes.

The specifics of NetMail and EchoMail operation are far beyond the scope of this document. Each front-end program operates differently, many requiring complex batch file setup by the sysop. Mustang Software technical support is unable to assist with specifics of any particular interface problems.

The choice of front-end programs is left to the individual user and many are suitable for operation with *WILDCAT!*. These include SEAdog from System Enhancements Associates,

BinkleyTerm, Front Door, and The D'Bridge Electronic Mail System by Chris Irwin.

A second supporting feature within *WILDCAT!* for NetMail and EchoMail is the Message menu option to call errorlevel 35. This menu choice is commonly used to begin a batch file process which invokes a NetMail reading program for use by the BBS callers. It is important to realize that the front-end mailer only performs functions to send, receive and organize mail, not reading by the BBS callers. As is the case with front-end programs, several good reading programs are available on the *WILDCAT!* HQ BBS.

The set-up of a mail reading program with errorlevel 35 follows the exact same procedures as a door. In fact, the NetMail option is listed in the MAKEWILD door definition screen as the first item. The CAT.BAT file must include a test for errorlevel 35, such as the line:

### **IF ERRORLEVEL 35 NETREAD.BAT**

The batch file NETREAD.BAT should change to the subdirectory containing the NetMail reading program and perform any other conversion chores necessary to begin reading mail.

At this point in time there are no NetMail reading programs supporting multi-user access. In a multi-node system, when one caller is reading NetMail the remaining nodes must be restricted from accessing this feature. This is accomplished by indicating that the NetMail "door" is NOT multi-user. Callers requesting your message menu [N]etMail choice when another node is already reading NetMail will be told that the door is already in use by another node.

Synops interested in setting up a NetMail or EchoMail system should call the *WILDCAT!* HQ BBS and download the necessary shareware programs. Information, suggestions, and recommendations as to which programs will operate together is available in the NetMail message section. Mustang Software cannot assist in choosing a program or offer techni-

cal support for batch file or program installation and configuration.

## **Future Directions**

Mustang Software is currently working in partnership with Chris Irwin to create a fully automatic Net and EchoMail system utilizing a common message database format. We are in the process of creating a link between D'Bridge and *WILDCAT!*, that will offer a transparent netmail connection in a multi-user environment. It will feature internal message entry, reading and control, with fully automated front-end processing.

Along with messages, D'Bridge and *WILDCAT!* can send files as attachments, and can even accept file requests from other systems. See the documentation for D'Bridge for details.



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# MULTI-LINE OPERATION

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*"The first thing you probably notice about your new NetWare purchase is that  
you receive enough manuals to open your own library.*

*The good news is you won't have to read them all tonight"*

Novell, Incorporated - December 1988 Edition  
SFT NetWare 2.15 Guide to manuals

## **In this Chapter...**

- Hardware choices.  
Novell, LANtastic, and others.
- Multi-tasking with a single AT.  
DESQview
- Inter-node chat and other multi-line features.



## LICENSE

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As indicated in the Software License Agreement, any multi-line version of *WILDCAT!* may be used "on multiple computers that are connected by direct cable to the same network server". It is not licensed for use at multiple locations.

Updates provided by Mustang Software, Inc. are addressed under the license agreement, and users are prohibited from selling, giving away, or otherwise transferring a previous release to another party after obtaining an upgrade.

Any questions regarding your rights under the Software License Agreement should be directed to a corporate officer of Mustang Software, Inc. for clarification.



# OVERVIEW

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Users installing the multi-line version for the first time, as well as those upgrading from a single-line version should first set up a single line system. Follow the instructions in the BLUE SHEET and the front of this manual to complete a single-line system, then add additional lines according to the information given here.

## Upgrade From Prior Versions

Follow the instructions provided in the INSTALLATION section. Follow the documentation carefully and do not attempt to add a second line or to alter your disk structure until you have successfully installed and operated in a single line configuration. At that point you are ready to embark on altering your structure and creating the new node directories for additional lines.

## First Time Installation

Follow the installation instructions on the BLUE SHEET and in the front of this manual to install *WILDCAT!* version 2.0 on your system. After completing a single line installation successfully, you may return to this section to alter your directory structure and add additional lines as needed.

## All Users

Reading this section of the documentation may be helpful in bringing up a single line system, but we must emphasize that single line operation is absolutely necessary prior to multi-line to ensure that all database structures are initialized and operating properly. When you have successfully completed installation of a single line *WILDCAT!* system return here for additional configuration details.

### How it Works

When writing the program code for a multi-line BBS system there are at least two ways of addressing the task of talking to more than one communications port at the same time.

The first makes use of internal program multi-tasking where a single PC/AT handles the port addressing for all lines, and internally directs the program responses to the ports as needed. This type of setup has the advantage of needing only the one computer, but is limited in that it cannot perform any BBS activities which require outside program or DOS shell support. It is not possible to run doors, external protocols, or any other program as a sub-process.

The second uses multiple-program operation, a method in which a separate copy of the BBS program is loaded into memory for each line or node. This type setup allows the flexibility for every individual line to perform whatever activity or BBS maintenance event is desired, while allowing the remaining lines to perform independent activity. The disadvantage is the extra memory required for multitasking software, or additional hardware for network operation.

*WILDCAT!* makes use of this second method of multi-line operation for the advantages it offers. This type of setup is required for doors and external file transfer protocols in a multi-line system.

## HARDWARE

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Prior to explaining the procedures for setting up a multi-line BBS we will review the necessary hardware and software combinations that may be used. In the following discussion the term "multi-line" is synonymous with "multi-node", and the two may be used interchangeably. Likewise, both a "line" and a "node" refer to a single *WILDCAT!* session connected to a single modem and phone line.

We have designed version 2.0N and 2.0P to operate in single line mode on a single PC system, or in multi-line mode in any of three general configurations:

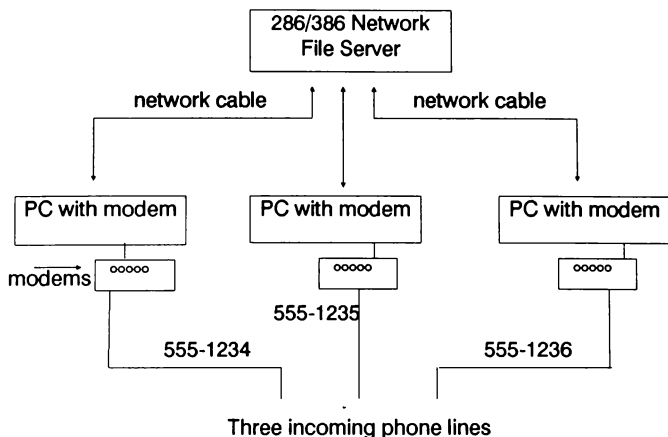
**1. LOCAL AREA NETWORKS** - *WILDCAT!* version 2.0 includes support for file and record locking under Novell, 3-COM, Banyan Vines, PC MOS 386, CBIS Net, LANtastic, and any networks that truly support DOS 3.x SHARE. Keep in mind that a number of peer-to-peer networks claim support of SHARE but do not actually have it! If in doubt, try running our Network message program "Brainstorm" on the network in question and saving several messages at the same time.

In a LAN environment, each *WILDCAT!* line operates on a separate computer connected to the other PCs or ATs via network cable. Each line runs its own copy of *WILDCAT!* which is loaded from either its own hard disk or from a network "server's" hard disk. A "server" in this context is used to define any computer in a LAN setting that allows sharing any of its peripherals such as hard disks, printers or other devices. Some network configurations only allow sharing programs located on a "dedicated server", one that only performs LAN management functions. Others enable sharing of disk devices located in other workstations and are normally referred to as peer-to-peer networks. In a network which allows multiple "servers", the server computers can also be used as workstations for a *WILDCAT!* node. Each workstation running *WILDCAT!* is assigned a separate and unique *WILDCAT!* Node ID Number in MAKEWILD. More

## Multi-line operation

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on the Node ID later, but for now just make note that each has a different Node ID number in MAKEWILD.

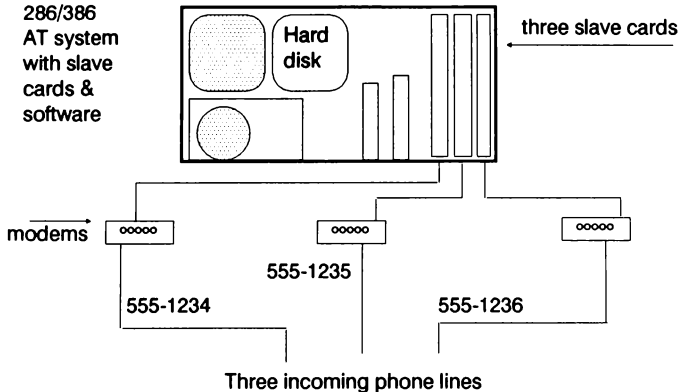


### Typical single server LAN

Regardless of the type of network used, only one copy of the *WILDCAT!* program and support files needs to be kept on the disk. This one copy is available to each workstation running a *WILDCAT!* node. All workstation nodes may update and access a common message, file, and user databases if desired. Each node requires it's own PC (512K suggested, single floppy is ok), a modem, a telephone line, and a connection to the network. Local logon sessions on a network do not require a modem or phone lines.

**2. SLAVE CARD SYSTEM** - This setup requires an AT or clone, and a slave card such as Alloy's PC-Slave, which is available in 8088 (NEC V-20) and 80286 versions. A slave card usually contains a CPU (8088/V-20, or 80286), a serial port, a keyboard port and a monitor port. Each slave card is

actually a PC on a card which interacts with and shares the other peripherals in the PC, including the hard disk.



### **Typical slave card system**

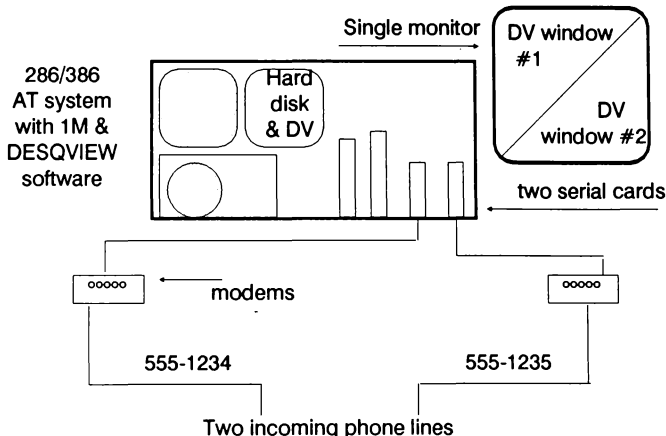
In brief, a slave card environment is one in which a single machine adds one or more slave cards with a modem and phone line connected to each slave card. *WILDCAT!* is loaded in the memory of each card just as if it was a separate PC system, and it uses the shared hard disk of the main system for storage. Some slave systems allow viewing access to each slave PC environment via the main system keyboard and screen. The cost factor in this setup can approach or exceed the LAN setup, depending on the network type and PC cost.

A spin-off on the slave card environment is the multi-PC card from CUBIX. It installes in a Novell network server, and operates 2 workstations from within the network server.

**3. DESQVIEW** - For those interested in running only 2 or possibly 3 nodes, it can be done on a single 80286 system under DESQview, a multi-tasking operating environment available from Quarterdeck Office Systems, 150 Pico Blvd., Santa

## Multi-line operation

Monica, CA 90405, (213) 392-9701. Although very fast 286/386 combinations may be able to run 3 or 4 nodes, we have found that performance may suffer significantly on slower systems when more than 2 serial port applications are opened. We will only recommend 2 ports under DESQVIEW unless you are prepared to upgrade your serial port UART chips, and are using a 386/20MHz AT or faster.



### Typical DESQview setup

DESQview setup involves purchasing DESQview ver. 2.25 or above from Quarterdeck, and installing it on your 286/386 system. Versions prior to 2.25 will not operate well with multiple serial applications, and are not recommended or supported by Mustang Software. In order to establish 2 DESQview applications you will need at least 512K of Expanded memory (NOT EXTENDED). Make certain that the memory board you purchase is fully compatible with the DESQview memory manager - check with Quarterdeck for details. In general, you need memory which meets the specifications for either AST's EEMS version 3.2 or LIM 4.0.



**CAUTION:** Most attempts at utilizing EXTENDED memory to emulate EXPANDED memory will prove unreliable when performed in a multi-tasking environment. This is due to the continual switching back and forth between the “real” and “protected” mode of CPU operation which can result in lost interrupts and system lock-ups. We do not recommend extended memory use for any purpose, even extended memory which is “converted” to EMS memory by use of a software driver.

This type of multiple line installation is the only one in which the performance of the BBS program may be hindered, due to DESQview's time-slicing. By contrast, both LAN and slave cards offer almost full throughput with no degradation. The number of nodes actually possible under DESQview will depend on a number of variables, including the speed of the microprocessor & clock, the baud rates of the connections supported, and the speed of the hard disk.

The memory requirements for *WILDCAT!* operating under DESQview are approximately 300K - 320K for each copy of *WILDCAT!*. This means that the total memory required easily exceeds the 640K base memory area. A system with 512K of expanded memory will operate well.

Although our recommendation is for no more than 2 nodes in a DESQview environment, there are a number of situations which may allow additional nodes to be added. If an exceptionally fast 286 or 386 CPU is used you may very well find that an additional node or two can be added with only minor impact on performance. Likewise, if the majority of your callers will be operating at 2400 baud, or if your BBS activity excludes downloads where speed is a factor, additional nodes may also be possible. Testing in a proposed installation is the only method of determining the actual limits for a system.

The choice of multi-node configuration is left up to the user. A later section of this manual contains more specific hardware installation references and suggestions for maximizing performance in each of the hardware environments.



## SOFTWARE & STRUCTURE

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This section reviews the principles, assumptions, and background information needed to successfully operate WILDCAT! in a multi-node environment. You should not attempt to install a multi-node system until you have successfully installed a single-line.

Regardless of the method of hardware installation, the software and directory structure is basically the same. This discussion will assume that all WILDCAT! related files are stored on a single hard disk in a dedicated network server (or a single hard disk in the computer using the slave cards or DESQview). In reality the subdirectories may be located on any hard disk or subdirectory in any computer accessible by the nodes needing the files. Much of the discussion in this section is intended to help prepare your answers to the MAKEWILD screen "Node Information" since a separate configuration file (CONFIGWC.BBS) is needed for each node.

The file structure for multi-line is very similar to that for single line operation. We begin creation of our multi-line system with the existing single node in C:\WILDCAT. The WILDCAT! program files should already be located in this main area (C:\WILDCAT). These include WILDCAT.EXE, WILDCAT.OVR, MAKEWILD.EXE, WCREPAIR.EXE, CONVERT.EXE, ADDFILES.EXE, WAIT!.EXE, WAIT-FOR!.EXE, MAKEQUES.EXE, CATEYE#.EXE (if available), and the PRO! Series .EXE files (if available). The files in this area will be made available to the individual nodes through a path statement in the AUTOEXEC.BAT file with wording PATH=C:\WILDCAT, or whatever actual pathname is appropriate. This path statement must be added to your AUTOEXEC file if it is not already present.

Next we need to create a new *WILDCAT!* startup directory for each additional node on the system. This is a very important step! Every node in a *WILDCAT!* multi-line system must have

its own startup directory, and its own unique node ID number. This directory is the location where MAKEWILD is run for each node. Remember, the actual MAKEWILD.EXE program does not need to be in this startup directory, it will be located through the path statement. The subdirectory contains the node specific information from MAKEWILD in the CONFIGWC.BBS file, and is the starting place for each node's CAT.BAT file. Our first node can still be started from the main WILDCAT! startup directory and does not need to be altered. In our example (a 2 node BBS) the startup directories may be identified as C:\WILDCAT (for node 1) & C:\WILDCAT\NODE-2 (for our second line).

Another directory which needs to be separated out for multi-line operation is the external protocol directories for each node. Each must be unique since different nodes may very well attempt to download the same file at the same time. As in in the single line setup, the paths to these areas should be kept short such as C:\WILDCAT\EP-1 and C:\WILDCAT\EP-2 since the entire path and all filenames requested are passed to the DOS shell for the external protocol. If the combination of path and filenames exceeds 127 characters, some filenames requested will be lost! These directories should contain the node-specific external batch files, each of which must include a command to change to the node protocol directory as the first line of the batch file (CD \WILDCAT\EP-2 for node 2).

Since each node creates its own configuration file (CONFIGWC.BBS) in its own startup directory, each may customize the locations of all other support files. This is done in the MAKEWILD "Node Information" screen. In our presentation here we will assume that all files are shared, although each node could access different menus, bulletins, doors, and other files. If you want different nodes to have different bulletins, questionnaires, menus, doors, or display files you should change these path names in MAKEWILD for each node, and create different subdirectories and files. Remember, the External Protocol directories for each node must be different for proper operation!!

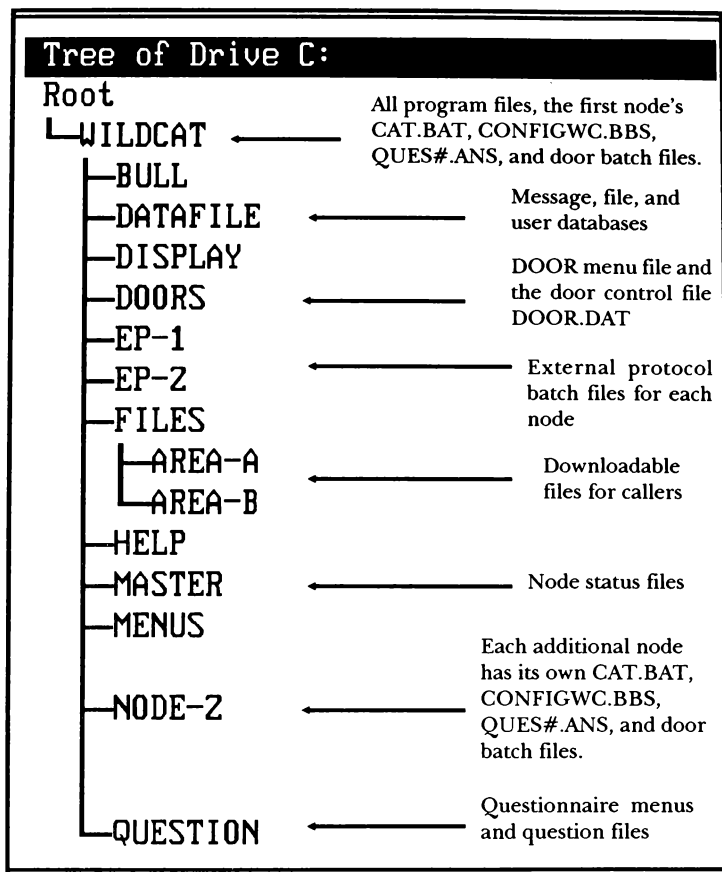
Our example directory structure also assumes that all nodes will access the same set of messages, files, and users. The path

is set to the directory C:\WILDCAT\DATAFILE\ which is reserved for them alone. Remember, since every node creates its own unique configuration with MAKEWILD, it may access any combination of users, files, and messages from any areas desired.

Lastly, each node must assign a MASTER path to indicate which nodes are included in a "system". This "system" is simply a reference to which nodes may be connected in multi-node chat, which nodes contribute to the total call count for the system, and which nodes can be checked for status, such as up/down/waiting for calls, etc. by the CATEYE program. If you want both lines to have a combined call count and to be able to enter inter-node chat the MASTER paths must be the same.

A node may be part of a "system" by sharing a MASTER path with others, but still access different messages, files & users. In this case the node will contribute to total "system" calls, will be able to participate in inter-node chat (if it is made available to callers), and will be shown as a node in the [W]ho is online command. An example of such a configuration is the Mustang Software Public access BBS which has completely separate databases for users, files, and messages, but shares a MASTER path with the Private WILDCAT! HQ BBS system for registered users. The callers to the public system have the ability to check out the other node access with [W]ho is online, although we have disabled the inter-node chat command for that node.

The following is an example directory structure for a two node system operating in any of the previously mentioned hardware environments:



Proper directory structure is very important. It will not only make your system maintenance easier, but will help safeguard the integrity of system files. No direct sysop modification should be made to files in the DATAFILE or MASTER areas.

Appendix C contains a complete alphabetical listing of ALL files used by WILDCAT!, along with the proper subdirectory locations, who is responsible for file creation, names of color files, if available, and the type of file. It also lists all files by the subdirectory to which they belong, and by the person or program responsible for creation.

As mentioned previously, the Startup Directory is the location of the MAKEWILD configuration file CONFIGWC.BBS. Since each node creates its own file in its own directory with its own unique node ID number, the sysop may exercise a great deal of variety in the configuration. For example, in a network environment with several nodes actually taking calls from phone lines, you might create almost identical CONFIGWC files. You may even create just one and copy it to the other directories for minor modification of Node ID number and path for external protocols. Other workstations on the network, even without a modem, can also be assigned a node number and startup directory as well, and access the BBS system via a local logon with the COM port set to 0 (zero). The name of the sysop for the non-modem local nodes may even be listed as the name of the local PC user to enable easy sign-on with F1.

As an example of the above, all Mustang Software staff have listed our individual names as "sysop" in the MAKEWILD configuration for our local access nodes, allowing each of us to logon with F1 and bypass the initial welcome messages. You may even specify that a local node should perform an errorlevel 60 after each which results in immediate return to DOS after every local sign-on. The important thing to remember is the settings will only affect the one node that starts up from the directory where that particular MAKEWILD configuration is located. Many variations are possible, just be certain that each node is assigned a unique WILDCAT! Node ID in its MAKEWILD configuration, one

which is different from all others, whether connected to real telephone lines or other local node sessions.

The MAKEWILD screen "Node Information" is the primary location of multi-line configuration. The initial questions deal with the directory paths for various items discussed previously. These first questions apply to both single-line and multi-line installations. The balance of the items deal primarily with multi-node setup, and do not even appear unless your *WILDCAT!* version is capable of multi-line operation.

**Node ID:** Each node MUST have a different ID number, within the range allowable for the version of *WILDCAT!* installed. Numbers do not have to be used in sequence, but each node number must be unique. DUPLICATION OF NODE I.D. NUMBERS WILL RESULT IN LOCK/UNLOCK CONFLICTS!

**Security to access node:** This value represents the minimum level needed to connect to a specific node. In situations where lines are reserved, such as our beta test node, access may be limited to prevent lower level users from connecting even if the phone number is obtained. The display file NO-#.BBS is sent to callers denied access, where # is replaced by the node ID number, i.e., the file NO-4.BBS is sent if it exists to a caller to node 4 who has too low a security level for access.

**Overwrite chat file:** The group and private chat feature operates by creating a disk file containing the text entered by the callers engaged in chat. This file is then read by each node in chat whenever it is updated with text from another node in chat. This is the only method of sending information to the proper locations in an orderly manner. More details of chat file operation is included later in this manual.

This option allows the sysop to specify whether the disk files are started fresh each time a chat is initiated, or if the text of new chat sessions should be appended to the end of the current file. Appending rather than overwriting allows the sysop to view the contents of chat sessions which took place since the



file was created using the VIEWCHAT.EXE utility. On an active system the chat files can rapidly grow quite large, and should be monitored for deletion just like the ACTIVITY.LOG.

The response to this question also controls the capture file used when the sysop answers a page or initiates local chat with the F7 key. The capture file PAGED.CAP is either appended to or overwritten the same as the inter-node chat files.

**Network type:** Pressing the spacebar cycles through the available choices. Specific networks include Novell, PCMO5 386, and CBIS Net. The choice DOS 3.x SHARE should be selected for any other network which truly supports or emulates the SHARE command. These include Banyan Vines, 3-COM, LANTastic, and many others. The final choice is SINGLE LINE for non-network use.

IF YOU ARE OPERATING A *WILDCAT!* RELEASE WHICH IS CAPABLE OF MULTI-LINE, BUT ARE ONLY RUNNING A SINGLE NODE SYSTEM, YOU SHOULD SET THIS TO SINGLE LINE.

If set to DOS 3.x SHARE when only one line is in use, the SHARE program must be loaded. Since no file and record locking is needed with only one node, loading SHARE is a waste of memory and processor resources.

At this point we have reviewed the multi-line criteria which apply to all configurations, and will proceed with a short discussion of installation considerations for several specific types of networks and multi-tasking systems. Review the sections dealing with your particular installation.

*Use SINGLE LINE for all systems with only one node in operation to save resources.*

### NOVELL

Novell, like a number of good networks available, offers a great deal of configurability which is useful in a *WILDCAT!* environment. We suggest making use of the following specific network options or their equivalent with *WILDCAT!* multi-node.

Novell does not require loading the optional Novell NetBIOS module at the workstation level when loading *WILDCAT!* from a network disk. Simply load the workstation shell with ANET3 (ver. 2.0a) or IPX and NET3 (ver. 2.12 & 2.15). *WILDCAT!* directly supports Novell without SHARE or the NetBIOS programs. The exception to this is when *WILDCAT!* is loaded from a non-network disk such as drive C:, even if the PC is attached and active on the network. Use of a non-network drive is supported without SHARE under Novell, as long as *WILDCAT!* is loaded from a network drive.

Novell offers several versions of NetWare including the entry level system ELS Level I, ELS Level II, and Advanced NetWare. ELS I is limited to 4 workstation connections, including a non-dedicated server that can operate as a workstation.

ELS II is limited to 8 workstation connections and also makes use of a non-dedicated server that doubles as a workstation. Both of the above are priced significantly lower than Advanced NetWare which will allow connection of up to the maximum 250 *WILDCAT!* nodes. We have found that Advanced NetWare ver. 2.15 is capable of operating two nodes on a single workstation using the multi-tasking program DESQview. This type of configuration allows operating a six line BBS on only 3 AT's connected as Novell workstations, with each AT running 2 BBS lines. CAUTION: This setup has not been tested at this time on ELS NetWare! Contact Mustang Software Technical support before purchasing a Novell ELS network for this type operation.

### Configuration

Establish a user name such as NODE-1 etc. for each node on the system. Assign the "user" security access for read, write, modify, and create access to all files in the STARTUP directory

for each node. Remember that Node-1 will use the main *WILDCAT!* directory as the startup area, while additional nodes must have separate startup directories. Extend these rights to each EXTERNAL PROTOCOL directory, MENU directory, HELP directory, DISPLAY directory, BULLETIN directory, QUESTIONNAIRE directory, DOOR directory, DATAFILE directories, MASTER directory, and any directories containing downloadable files. Assign read rights to the *WILDCAT!* program directory (even though this is the same area where node-1 is started) to enable every node to load the program files. The “user” does not need access rights to the rest of the system, except perhaps the the “public” and “logon” directories if you will want to do system maintenance from the node workstation under the node username. You may want to establish a group name such as BBS and assign these rights by group rather than individually by node names..

If your network supports it (Novell does), you may establish a drive “MAP” to your external protocol directory to enable addressing it as a single drive letter. For example, our actual path to the protocol directory for node 2 is

**F:\REGISTER\NODE-2\PROTOCOL**

but it is addressed in MAKEWILD as simply **Y:** since we include the Node-2 login script command

**MAP Y:=SYS:/REGISTER/NODE-2/PROTOCOL**

As you can see, the MAP command functions much like the DOS command SUBST. This allows *WILDCAT!* to pass a much shorter command line to the shell, such as

**Y:ZDOWN.BAT filename1 filename2 etc.**

A Novell system using a fast hard disk in the server with ample disk caching memory can easily handle a very large number of callers. No system degradation is usually noticed with the *WILDCAT!* database “safety mode” set to FULL.

### PEER-TO-PEER NETWORKS

This section reviews network considerations for generic peer-to-peer networks using LANtastic as an example. The operational features discussed apply to most similar LANS except for network specific recommendations. From an operational viewpoint, these networks will function much like any other. The primary difference for a *WILDCAT!* installation is the use of multiple “servers”. If multiple workstations are used as servers for various system resources, these same server/workstations may also be used as a *WILDCAT!* node. Each node must still be given a unique Node ID, and must reference its own private startup directory and external protocol directory.

### LANtastic

This network operates *WILDCAT!* well when configured properly. The following network parameters have been found to increase reliability and improve operation:

DOS ver. 3.1 or 3.3 are recommended, version 3.2 is not fully compatible with the network communication interfaces.

Create a CONFIG.SYS file with the command **FILES=65** where 65 is equal to  $50 + (5 \times \text{the number of WILDCAT! nodes installed})$ . For example, a three node system would be  $50 + (5 \times 3) = 65$ . Failure to supply enough file handles will cause operational problems in various areas with little or no explanation as to the cause. CONFIG.SYS must also include **FCBS=32,32** to provide file block allocation properly. These may need to be increased if additional nodes are installed, or if your implementation makes use of NetMail or other file intensive applications. Finally, CONFIG.SYS must include **STACKS=32,128** to allow additional stack buffer area. See your DOS manual for details of FILES, FCBS, and the STACKS command.

LANtastic is constantly making improvements in their software. In order to achieve the most efficient installation you should check the latest information posted on the Private

WILDCAT! HQ BBS. Important considerations during installation for past LANTastic releases have included:

**LANBIOS SESSIONS=15 NCBS=15 BUFFERS=15 TIMEOUT=150 /Verbose  
REDIR SERVER BUFFERS=16 SIZE=2048  
SERVER**

In the server setup the number of USERS should be equal to the number of network connections + one for the server, and the number of NETWORK TASKs equal to the number of network connections + one. The memory buffers should be set for 8192. **Again, check the WILDCAT! HQ BBS for updated information for best results!**

**Note:** We have been advised that the LANTastic print redirection program in some releases causes a variety of network problems with communication processing. We recommend that LANTastic users experiencing unexplained system problems or crashes **remove all NET USE LPT1** printer commands and spooler programs. In addition, all PCs, both workstations and servers, must be given account privileges which **include the "P - Peer Privilege"** choice.

The workstations in a LANTastic network do not require a hard disk, and operate well with a single floppy for boot-up. Include the LANTastic software on the floppy with a batch file containing commands necessary to connect to the server, establish network link names, and finally to begin CAT.BAT from the node startup directory for that node. There is no need to issue the SERVER command on the workstations.

The *WILDCAT!* database "safety" mode should initially be set to PARTIAL for LANTastic and other peer-to-peer systems. If you suspect that a network slowdown may be caused by disk access, you should try changing the safety mode to NONE and see if performance increases. If so, do not be concerned with the lack of a safety mode since any database errors which might occur can easily be repaired with the WCREPAIR program.

The use of a small disk cache system with LANTastic is recommended for best performance.

### SLAVE CARDS

Follow the same *WILDCAT!* software setup procedures as a network. The only real difference here is that SHARE must be loaded in EACH SLAVE ENVIRONMENT.

Alloy's PC Slave system is established to act much like a network with no cables connecting the individual workstations. Instead, each workstation computer is actually a card installed into the bus on the "server".

Alloy's own network software is NTNX, and the current version (2.0) only supports DOS 3.3. Setup the hardware and software according to the instructions from Alloy. If the slave cards are populated with 1 megabyte of memory we recommend allocating 512K for the slave partition and the remaining 512K as system disk cache within NTNX.

The *WILDCAT!* configurations on the slave cards are established on the server hard disk exactly like any other network setup. Create separate startup directories for each node and create the required node areas for external protocols, if used. This setup may be done from the server console, but each node must actually be started and tested by its own autoexec.bat file as describe in the documentation. The individual slave cards may be accessed by connection directly to the cards via terminals (monitor & keyboard). Alloy cards also operate with the utility program NXSCAN to control slave cards from the server in real time without using additional terminals.

The NTNX software includes a utility to monitor each slave from the server, although interaction is not possible.

When operating in a slave system, all *WILDCAT!* sessions MUST make use of answering phone by Auto-Answer since Alloy uses the ring detect line (pin 22) internally to reboot the individual slave systems from remote. Using auto-answer may have an impact on your door operations, and you are cautioned to review the disadvantages of using auto-answer with doors or external protocols. See the door section of Advanced Features for details.

## DESeqview

DESeqview should be set up with two windows (or more, limited by your PC), and follow the same *WILDCAT!* software installation procedures as a network. The only real difference here is that SHARE must be loaded prior to starting the DESeqview program with DV or XDV. There is no need to load SHARE in each DV window. Recommended versions of software are DESeqview 2.25; QEMM 4.23 with TASKS=20; and 386 MAX 4.05. if used.

*WILDCAT!* is DESeqview “aware”, and will recognize when it is operating in a DV environment. When the presence of a multi-tasker such as DV, TaskView, or OmniView is detected *WILDCAT!* automatically performs direct screen writing to an alternate video buffer provided by DESeqview. When configured properly *WILDCAT!* is able to run in any size screen window, in foreground or background mode, with no interference with other programs. *WILDCAT!* also automatically relinquishes the time slice when waiting for keyboard or com port input, providing yet additional speed to other tasks. The program TAME is not required since this function is performed internally.

We recommend use of DESeqview version 2.25 and above only. We also strongly suggest use of the 16550A UART chip as a replacement for the 8250 or 16450 found in most RS-232 boards. The use of this chip becomes even more important when more than two *WILDCAT!* nodes are configured on a single machine. This chip is inexpensive and is available from a number of sources at a nominal cost, including Arrow Electronics at 1-800-932-7769.

The Initial setup of DESeqview (SETUP.BAT) allows setting performance parameters which affect the processing time allocated to foreground and background tasks. You will want to experiment with these settings, but should begin with each task receiving equal time if both are operating a *WILDCAT!* node. Start with 3 ticks for each node. If you are operating a single BBS in the background while using the foreground for other activities such as word processing, you then should allow the background task more time by a factor of about 3.

*The UART  
(Universal  
Asynchronous  
Receiver and  
Transmitter)  
chip used for  
serial  
communication  
should be  
upgraded to  
the NS16550A  
when using  
DESeqview.*

## DESQview SETUP Parameters

1

Advanced Setup: Performance

Task Processing Time (in Clock Ticks)

Foreground: 3

Background: 3

Memory Usage (in K)

Common Memory: 17

DOS Buffer for EMS: 5

Optimize communications? (Y/N): Y

Allow swapping of programs? (Y/N): Y

Manage printer contention? (Y/N): N

Next field

Backup menu

DONE

Tab

Esc

↵

The important parameters here begin with the second half of the page. Optimize communications must be set to "Y" in order to operate high speed modems reliably. In addition, you should load the *WILDCAT!* node that uses the highest baud rate first. Doing so prevents the 0-640K area of memory from becoming fragmented since communications programs are never swapped out, and guarantees the best transfer speeds. In addition, if an Enhanced Expanded Memory board (EEMS) is being used DESQview will make use of its "instantaneous" mapping registers for the first program while assigning all other programs to the slower registers with mapping overhead. Remember that the processing power of your PC ultimately limits how many high speed communications programs may be run simultaneously without dropping characters.

Swapping of programs may be set to "Y", although *WILDCAT!* should never be swapped out of memory. This parameter simply allows other programs this option. Printer contention



is not managed since DV will suspend a program that attempts to print if another is already printing.

The screens below show the DESQview setup for each *WILDCAT!* node window. Note that we have indicated that *WILDCAT!* does not write directly to the screen since the video buffer is automatically redirected. Fine tuning DESQview parameters may be helpful in any individual installation.

3-Change a Program		Change a Program
Program Name.....: WILDCAT! Node Z		
Keys to Use on Open Menu: WZ		Memory Size (in K): 350
Program...: CAT.BAT		
Parameters:		
Directory.: C:\WILDCAT\NODE-Z		
Options:		
Writes text directly to screen.....: [N]		
Displays graphics information.....: [N]		
Virtualize text/graphics (Y,N,T).....: [Y]		
Uses serial ports (Y,N,1,Z).....: [Z]		
Requires floppy diskette.....: [N]		
Press F1 for advanced options		Press ← when you are DONE

### Standard Options Window

3-Change a Program		Change a Program Advanced Options
System Memory (in K).....: 0		Maximum Program Memory Size (in K)..: ____
Script Buffer Size.....: 1000		Maximum Expanded Memory Size (in K): ____
Text Pages: Z Graphics Pages: 0		Initial Mode: ____ Interrupts: 00 to FF
Window Position:		
Maximum Height: 25	Starting Height: 25	Starting Row...: 1
Maximum Width.: 80	Starting Width.: 80	Starting Column: 1
Shared Program		
Pathname..:		
Data.....:		
Close on exit (Y,N,blank).....: [N]		Uses its own colors.....: [Y]
Allow Close Window command.....: [Y]		Runs in background (Y,N,blank)....: [Y]
Uses math coprocessor.....: [N]		Keyboard conflict (0-F).....: [0]
Share CPU when foreground.....: [Y]		Share EGA when foreground/zoomed.: [Y]
Can be swapped out (Y,N,blank)..: [N]		Protection level (0-3).....: [0]
Press F1 for standard options		Press ← when you are DONE

### Advanced Options Window

We are now ready to actually set up and test the new multi-node system. The following checklist will help ensure that all important items have been addressed:

- ☐ Single line *WILDCAT!* installed and operational on a single computer without network software or DESQview.
- ☐ Network software installed and operational, verified with multiple access, or DESQview installed and multiple windows activated.
- ☐ New directories established for each additional node, and another for external protocols for each node.
- ☐ Path statement placed in AUTOEXEC.BAT file for each node (or in network software search command) to include the equivalent of `PATH=C:\WILDCAT`
- ☐ New configuration files created for each node by starting MAKEWILD in the startup directory for each node to create a CONFIGWC.BBS file in each startup directory. Repeat for each additional startup directory. Assign a different Node ID to each.
- ☐ Check to ensure that all files are in the proper directories as indicated by your MAKEWILD choices. Make certain that you place the files in the correct areas, see Appendix "C" for a list of proper file locations.
- ☐ Create a CAT.BAT file for each node in the startup directory with all the necessary errorlevel test required. Make sure it returns to the proper startup directory after every branch to an external protocol or other branch.
- ☐ Bring up one node at a time with the CAT.BAT. Test each fully with a remote logon at all security levels.

## OPERATIONAL CONSIDERATIONS

The following are *WILDCAT!* program areas which are affected by multi-node operation, and may need additional explanation.

The *WILDCAT!* multi-node program code performs both file and record locking, unlike many other BBS packages which only make use of file locking. What this means to you as a sysop is enhanced versatility and operation. For example, when operating several nodes at one time, *WILDCAT!* is able to perform sweeping changes including deleting messages in the wastebasket since any messages currently being “used” by a node are simply ignored due to the record lock. Record locking allows the *PRO!* series to actually perform major database updates to most items without disabling all nodes. File locking systems prohibit this type of access.

The down side of this flexibility is the database structures have changed significantly from version 1.13. Utilities from third parties which deal intimately with the database structures will not operate properly until upgraded by the developers. Be very careful not to run any old utilities in events or batch processes until you have tested them with the new database code. We have provided the newest file structures on disk in the file 20-REC.TYP, and in Appendix “E” in this manual. This information is available to developers who wish to upgrade their products. The new databases make use of the B-Tree Filer 5.0 from Turbo Power Software, Scotts Valley, CA.

**DATABASE SAFETY MODE** - The “safety” mode of database operation can be set for “FULL”, “PARTIAL”, or “NONE”. The default setting of “PARTIAL” will perform additional database activity of flushing the buffers after each access. Although this will virtually guarantee that a power failure will not cause data corruption, it takes extra time to perform the flushing. The “FULL” mode creates an additional database file with the extension .DIA, and will perform integrity checks as data is changed and new data is added. The FULL mode may take as much as 4 times as long to write record changes in the databases. It actually holds information in the .DIA

(diagram) file, and checks data integrity during the next transaction. If an error is encountered it is immediately corrected before continuing with the new record. If network operation seems excessively sluggish or you are operating under DESQview and need additional speed, we suggest changing the safety mode to "NONE". The WCREPAIR program will fix any database problems that develop in any mode.

**DOORS** - Door operation in a multi-node system is essentially the same as single line. A DOOR.DAT file is created in the DOOR path, and is used by all nodes sharing that path. If you have a DOOR path shared between nodes *WILDCAT!* will check the DOOR.DAT operational flags to determine if a door is "in use" whenever a caller requests access. Access is denied if it is in use and the door has not been specified as multi-user in MAKEWILD. For those few doors with true record locking you may specify that it is multi-user and no checks for access will be performed. The door itself will then be responsible for handling the necessary locks when two or more callers access it at one time. Most doors are not multi-user.

An alternative door setup allows more than one node into a door at the same time. The sysop may specify different DOOR paths in MAKEWILD for each node, and duplicate the same menu for doors in all of the DOOR paths. This setup will allow you to ignore the multi-user flag since every node has its own DOOR.DAT file and doors will never be marked in use by another node. A door can never be "in use" since there is only one node using the DOOR.DAT file. The sysop must also create different door batch files for every node (in the startup directory) that begin door execution in different directories with different copies of the doors in operation. This type of setup is fine for doors which do not make use of previous play to affect the current activity. These might include Trivia games, gambling, or guessing games doors. This type of arrangement loses some appeal for doors like Tradewars and Masters of the Universe where the desire is to have all players compete against one another. The single DOOR path with lockout is a better arrangement in this situation.

**NETWORK MAIL** - The Message Menu feature [N]etmail is actually DOOR number 0 which has access from the message menu. It is handled exactly like a door, and multiple user access is denied unless it is flagged as a multi-user door in MAKEWILD.

**INTER-NODE CHAT** - As mentioned previously, chat makes use of disk files for text entered by callers. Although direct port to port access could be accomplished in any one environment (LAN, DV, etc), there is no feasible way other than disk files to support such diverse applications as true networks, slave cards, and unknown port parameters under a number of multi-tasking programs.

The key to having your callers make successful use of inter-node chat is clear explanation and training. Make use of the PRECHAT.BBS (.SCR), CHAT.HLP, and CHATCMD.HLP files to help your users. Since screen updates are only possible once a line has been sent, emphasize that users should be patient. If the other caller exits chat a notice will be sent to all others in chat. The same is true after paging a caller; simply wait for the notification that he has entered chat rather than issuing a constant stream of /USERS commands.

The chat file created by *WILDCAT!* is in record format, and is not easily readable without the VIEWCHAT utility. VIEWCHAT is invoked by following the command with the filename to view, such as CHAT.002 or CHAT.GRP. VIEWCHAT is not required to view the local chat capture file PAGED.CAP. The output is sent to the screen with no pauses. This allows redirection to a plain ASCII file for archival purposed with the command:

```
VIEWCHAT CHAT.001 > CHAT001.TXT
```

or page oriented screen display with:

```
VIEWCHAT CHAT.003 | MORE
```

which will “pipe” the output through the DOS MORE program with appropriate screen pauses. A similar command might redirect the output to the printer with:

VIEWCHAT CHAT.GRP > PRN

With proper batch file operation this utility may be included in events to print the previous nights chat files to disk or printer and erase them if desired.

**PRO! SERIES OPERATION** - Read the individual documentation file for complete operational details. In multi-node situations the PRO! utilities may be run without taking down active BBS nodes for most functions.

All PRO! applications **MUST** be started from a valid startup directory, and have access to a valid, unused node ID via a CONFIGWC.BBS file. This startup directory may be one of the actual BBS nodes which has been scheduled to run a PRO! utility as an event, or a node which has been manually stopped with F10. It could also be an unused node ID on a separate workstation or in another DESQview window. Just like a local **WILDCAT!** access from a network computer, it must have a valid Node ID to function. **DUPLICATION OF A NODE ID USED BY ANOTHER WILDCAT! BBS NODE OR ANOTHER PRO! SERIES IN OPERATION WILL CAUSE DISASTEROUS RESULTS!**

As an example, if you are operating 6 actual lines on the 10 node version 2.0N, and have set them up as nodes 1-6, you may still run U-PRO! on another network PC as long as you have created a startup directory for an additional node (perhaps 7), have run MAKEWILD in the node 7 startup directory, and have assigned a node ID of 7. If you have already used Nodes 1-10 for real incoming lines, you **MUST** take down one line to operate the PRO! utility.

Each PRO! series should be limited to operation on only one workstation at a time if database modification is being completed. For example, unused nodes 7 & 8 may both run M-PRO! at the same time, even while nodes 1-6 are taking calls, as long as they are reporting rather than making changes. If one is deleting messages that are over 60 days old and private, and the other is deleting all mail in folder B that is over 10 days old, there will be just too many record locks thrown at the system at one time. If both are simply listing

mail to a file for archiving, the dual processing will probably be handled adequately, but again this is dependent on the network used. If in doubt, run only one utility at one time.

**EVENTS** - Multi-node operation must be taken into consideration when running most events. We have discussed the PRO! series which may be run as events (for most functions) even with other nodes active. You can easily schedule node 2 for a wastebasket dump of folder "Y" at 4am while leaving all other nodes available for calls. This is in contrast to the message renumbering portion of both *WILDCAT!* and *M-PRO!* which will not operate unless all nodes have been taken down. To perform a renumber the sysop must schedule an event on ALL nodes that access the same message datafiles at the same time, say 4am. One node then uses the WAIT! program to pause for five minutes or so (just in case the clocks are a little off) with the command WAIT! 300 (wait for 300 seconds). The second line of the batch file tells M-PRO! to perform the renumber. At the same time the other nodes in the system execute an event batch file that simply says WAIT-FOR! 04:30 (wait for 4:30am, then continue). This assumes that the renumber does not take more than 25 minutes.

Any third party programs that read the datafiles may also need all other nodes to be suspended since the files or records needed may be locked at any time and access unavailable. The exception are utilities making use of the B-Tree Filer from Turbo Power Software.

**USER ACCESS** - Only one username may have access to a system at one time. If user John Magan signs on node 4, no one by that name may access any other node on the system. This feature prevents multiple updates of user records from different nodes to extend time or functionality.

**BACKUP** - This aspect of proper computer management is more important than ever in a multi-line environment. The introduction of file and record locking adds an additional dimension to this activity which can cause problems. You may find that your previous backup software is unable to backup files which have locks placed on them by software, especially if you have been relying on a batch file copy process.

Aside from purchasing "intelligent" backup software designed to sidestep the locks and backup all files on your particular system while the BBS is running, you may have little alternative than to implement a system-wide event which takes all nodes down with a WAITFOR! command while one node performs the necessary backup to disk or other media.

**PHONE ROTATION** - This may seem like a trivial topic for discussion, but there are a number of alternatives and differing opinions regarding the best implementation. We will review several possibilities here with no attempt to persuade a sysop that one is better than another, but present them as different alternatives for different installations.

As an example we will discuss a 10 line system. The simplest setup is a single published phone number which rotates (or hunts in telephone company parlance) down from line 1 to two, to three, to ten. This rotation ignores the caller's baud rate, and leaves access to faster modems to chance, unless all lines are connected to the same modem types.

Another alternative is publishing three numbers, the first rings line one which rotates to two and three. All 3 lines are supported with a 2400 baud modem. The number for line four is then published as a USR 9600 HST number, and rotates through lines 5, 6, 7 and 8. The number for line 9 is also published and is supported by a HayesV-Series 9600 which rotates to another V-Series on line 10. While this setup allows higher speed modems to selectively call the correct lines, it forces the caller to dial several numbers if they have no preference for connect rates.

A variation on the above could have the calls to the HST lines limited to 9600 baud only by making that limitation clear to callers and then setting the modem with &N6 to limit calls below 9600 baud.



## MULTI-LINE ERRORS

The file and record locking database code in *WILDCAT!* is very reliable and should offer trouble-free operation when set up properly. The most common error messages is "Database Lock Retry # xxx", which will make 100 attempts to lock the database file needed. This error appears in the upper right corner of the screen, and can pop-up at any time there is heavy BBS traffic in a multi-line system. The message should disappear quickly, usually within 10 retries when the database lock is removed. If it continues and gets to the maximum value of 100 retries the system will generate a fatal error, and place a note in the *ACTIVITY.LOG* file. If this error occurs during program start-up it usually indicates that *SHARE* is not loaded and is required for operation. The following is an example of this error during start-up without *SHARE* loaded:

WILDCAT! Version 2.00P (08/12/89)      Registration Number: 86-001	
Mustang SW BBS Mode 1	
Database Information: Users       = 0 Files       = 0 Messages   = 0	Toggles: Printer    is OFF Pager      is OFF Page Bell  is OFF Keyboard   is OFF
>>	<<
This PROFESSIONAL version may not be distributed! Press [HOME] for description of command menu options. WILDCAT! (C) 1987, 89 Mustang Software, Inc. Bakersfield, CA (005) 395-0223	

Immediately after 100 retries *WILDCAT!* is terminated and the errorlevel is set to 1, indicating an error. It is up to proper errorlevel testing in *CAT.BAT* to restart the program.

All fatal error messages, including a timeout of the above Lock Retry, result in posting to the ACTIVITY.LOG and the screen in the following format:

**PROGRAM HALTED**

**Error During DATABASE LOCK FAILURE. #: 10355**  
**DATABASE ERROR -> A lock prevents the operation. 10355**

**Please Correct & Restart**

Another error which is very similar to the Database Lock Retry is "ReadBBSFile Lock Retry". It also appears in the upper right corner in inverse video and will retry up to 100 times. The difference is the Database Retry Lock refers to an attempt to lock one of the three database files while the ReadBBSFile Lock Retry indicates an attempt to lock one of the other four system data files, MASTER.DAT, NODEINFO.DAT, MESSAGE.DAT or DOOR.DAT.

If your system experiences unexplained Lock Errors it may indicate that NODE ID numbers have been duplicated, and both nodes are attempting to lock a record using the same ID. Check to be sure EACH node has a different ID number in its own startup directory when MAKEWILD is run. Repeated Lock failures in an otherwise normal network suggests another cause for the error.

## Error Correction

All other network error messages are specific in nature and are usually related to program code operation. Should you experience errors, first check to determine if they are related to SHARE or improper node ID assignments. Once these have been ruled out, run the WCREPAIR program (with all other nodes down!) and repair all databases. If the problem persists, print the contents of the ERROR.LOG from every node and call our tech support department for consultation. Be prepared to review your complete system setup, node configurations, and specific errors encountered.

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# APPENDICES

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*"No matter what business you're in, if you try to see how much you can give for a dollar instead of how little, you're bound to succeed."*

(unknown)

## In this Chapter...

- **MODEMS**  
Setting dip switches and S-registers.
- **ANSI Codes**  
What codes to use for pizzaz in your .SCR files.
- **WILDCAT! Files**  
A complete set of listings alphabetically, by file area, and broken down by the person or program responsible for creation.
- **Errors and Troubleshooting**  
The most commonly asked questions and problems encountered during operation.
- ***WILDCAT!*'s file and record structure.**  
Technical information for programmers who want to design their own support programs.
- **WILDCAT! support programs.**  
Other programs designed to make the Sysop's life a little easier.
- **Other Mustang Software products.**  
The PRO! Series of Utilities for *WILDCAT!*

## APPENDIX A - MODEMS

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### Modems in General

A computer and the supporting peripherals that constitute a bulletin board system represent a chain of equipment that rarely gets to rest.

Even while idling, the system is working. Most BBS's are on call twenty-four hours a day, seven days a week. If a chain is only as good as its weakest link, what about the various links that constitute a BBS operation? It then begins to have real meaning that the hardware/software must not only work together, but that each component is actually dependent upon the others, and must be durable as a stand-alone device.

A BBS system's modem is the most important link to the outside world. We strongly recommend purchasing a name brand modem that has proven itself as a reliable performer under long term use.

Mustang Software regularly solicits modems from manufacturers during our program development, with the understanding that WILDCAT! will be tested and guaranteed to run on their equipment. We continue to add modem settings to our list as new manufacturers cooperate with demonstration units for testing. Our thanks to those who have participated in this evaluation program.

### Modem Configuration Files (.MDM)

The modem files distributed with *WILDCAT!* (\*.MDM) should operate properly for brands which have actually been tested by us. However, other brands may require some minor adjustment since we have not actually installed them. We are anxious to expand the list of modem setting files, and encourage users to mail or upload their modem files to us for inclusion in later releases. Likewise, by calling the registered

user BBS you may find that we have already added a new modem configuration file (.MDM) specifically for your brand.

The MAKEWILD installation provides a large number of specific modem settings using the F3 key, including several generic settings for a “typical” modem types.

### Hardware Error Checking

Many modems support the ability to perform checking of transmission through hardware built into the modem itself. If your modem supports an internal error checking protocol (MNP or ARQ), you may make use of this feature and have *WILDCAT!* offer additional internal file transfer protocols that take advantage of this ability. These protocols are Ymodem-G, and 1K Xmodem-G, and will increase the transfer throughput significantly. Note that *WILDCAT!* will not make these protocol choices available to a caller unless the connection was made using a result code for reliable connection (see MAKEWILD Modem Setup - Part 2). A few of the modems which support MNP/ARQ are Microcom, US Robotics HST and 2400e, Telebit, Ven-Tel, and the Multitech 224EH and EC. Consult your modem manual to determine if you have MNP support.

### Modem Related Connection Problems

Should you have trouble with your modem operating properly after installing and checking the setup parameters, you should follow these steps to determine the problem area. NOTE that all references to the character “0” are ZERO and not the letter “O”. THIS IS VERY IMPORTANT!

**First**, start your favorite communications program such as Qmodem, Procomm, Smartcom etc.. Perform whatever commands are necessary to enter “command state”, usually a blank screen where you can enter modem commands.

**Second**, type ATZ. You should see “OK” or it’s numeric equivalent “0”, which indicates you have established a good connection to the communications port. If this test fails, you

need to check your hardware to make sure the port you have selected exists and is the ONLY port with that designation (COM1 etc). If you got the "OK" then proceed with the following step.

**Third**, enter the appropriate startup strings listed in your MAKEWILD configuration one at a time to see if the modem is interpreting them correctly. For example, if your modem calls for AT V0 M0 Q0 E0 ....you would type

AT V0 <enter>

The result should be a 0 (ZERO) which is the numeric result code for "OK". Then type AT M0 <enter> and see if you get a zero. Continue to test each setup parameter until you are sure that your modem accepts each one. Perform this test for EVERY command in ALL startup strings, as well as the reinitialization string, if being used. Should all of them be accepted by your modem but it still fails to operate properly you should increase the modem delays in MAKEWILD to 2500 each in increments of 500. If any individual setup string item fails, check your manual and make sure the parameter is a valid command.

## **Modem Switch & Register Settings**

The settings for any individual modem may vary, but most modems make use of some standard switch and S-register settings. The discussion here deals with the most common dip switch choices (if your modem has them) and the register settings. The switches, if present, may be arranged and numbered in any order, but will usually cover the following functions. If your modem has switches you should set them according to this discussion.

**Data Terminal Ready (DTR)** - One of the pins on your cable or connection between your computer and modem is DTR, which is used to assure that the two can "talk" to each other. *WILDCAT!* handles the operation of DTR and uses it to control the connection. One of the main uses for DTR is manipulation to tell the modem that a caller has pressed G for goodbye and wants to hang up. This switch can usually be

either FORCED ON or NORMAL. *WILDCAT!* needs a NORMAL setting in order to be able to raise and lower DTR to tell the modem when to hang up the phone.

**Verbal/Numeric Result Codes** - This switch controls the type of responses the modem sends to the computer for connect, ring detected, etc. The two choices are Verbal (also called verbose) or Numeric (also called terse). *WILDCAT!* must receive Numeric codes, and sets this by use of the ATV0 (that's a zero, not a letter "o") command in the startup strings. This switch must be set to Numeric since some modems (the USR HST in particular) will not allow the V0 command to override the switch setting.

**Display Result Codes** - This switch indicates if the response from the modem should be sent to the computer. *WILDCAT!* needs to get the numeric codes and therefore this switch should be set to enable result code display.

**Command Mode Local Echo** - Local echo refers to the ability to actually display the result code to the screen locally when it is sent. *WILDCAT!* does not require this echo to operate properly.

**Auto Answer** - The preferred method for *WILDCAT!* to use in answering the phone is by monitoring the Ring Detect Line, rather than having the modem auto answer the phone. In this case the auto answer switch should be set to NOT answer. If instead you elect to answer the phone by auto answer (in MAKEWILD), this switch must be set to have the modem perform auto answer. The status of this switch can be overridden with AT S0=0 to disable auto answer or AT S0=1 to enable it.

**Carrier Detect Override (DCD or CD)** - This switch is VERY important. *WILDCAT!* monitors pin 8 to determine whether a carrier exists to know if someone is online. If this switch is set incorrectly, *WILDCAT!* cannot tell when someone hangs up, and may think someone is online when they are not! It should NOT be forced true or forced on. It MUST be set to reflect reality or to follow software. If *WILDCAT!* is started



with CD forced true it will display the message "Modem Carrier Detected; must lower to initialize. Tries: 1...", and will retry several times.

**Single/multiple phone line** - can be set either way depending on your phone line.

**AT command set recognition** - Since *WILDCAT!* sends and receives AT commands to and from the modem, this switch must be set to enable AT command set recognition.

**Escape Code Operation** - It is advised that your modem disconnect if it receives a +++ from your caller. Not all modems have this switch. To prevent acting on an escape sequence, we recommend including the command S2=255 in a modem string to change the escape code character from +++. See the discussion of the S2 register below and in your modem manual.

**Use Factory or NRAM defaults** - Some modems which allow storing setup parameters in non-volatile RAM (NRAM) also allow selection of whether the power on default parameters are loaded from NRAM or the factory settings. If you modem allows a choice you must set this switch to load from the NRAM settings, not the factory settings. The USR HST is one modem which has this dip switch.

**S0 register** - sets the ring number to answer the phone. If set to 0, (zero) auto answer is disabled. S0=1 will enable auto answer on the first ring.

**S2 register** - holds the ASCII value of the escape sequence character. The factory default is 43, the plus sign (+). The character indicated in S2 needs to be sent 3 times with appropriate pauses to place the modem in command state. Values above 128 disable the escape sequence. We recommend disabling the escape sequence since it is not needed by *WILDCAT!*, and will prevent troublesome callers from attempting to disable your modem.

**S7 register** - this value determines how long the modem waits for a carrier to be detected after it has answered a call. It should normally be set to the default of 30, and must match the value in MAKEWILD for *WILDCAT!* to wait before giving up (Modem Setup - Part 1, question 2).

**S25 register** - not all modems have this register, but it is important if it exists. A change in the DTR (data terminal ready) status from on to off that is shorter than S25 is ignored. This means that the default value of 5 (five hundredths of a seconds, or half a second) represents the shortest time that DTR must be lowered to have the modem hang up. You may recall that *WILDCAT!* uses a lowering and raising of DTR to end a call, and we expect the modem to respond. If it doesn't it could be due to this register being set too high. We lower DTR for just over 3 seconds, and therefore the maximum value of S25 should be 30. We suggest leaving the default of 5.

### Modem-specific Settings

The US Robotics HST 9600 baud modem makes use of a number of setup strings and codes to maximize through-put at high speeds. This discussion will review a few of the parameters used to increase through-put at high speed. Keep in mind that the fine tuning for maximum speed may have an effect on some doors and external protocols, which may not operate properly with the faster DTE rates.

To get maximum speed our USR-HST modem file initializes your modem at 19200 baud and then locks the DTE setting at the initialized baud rate of 19200. In addition it includes &B1 in the setup string to tell your modem that the DTE is locked, and &H1 to enable hardware flow control using the CTS (clear to send) line on your modem. Remember that when you lock DTE at 19200 you have actually opened the line from your computer to the modem at the fastest rate possible. This will mean that a user who enters a spacebar command to stop a display file may not have it stop since by the time he presses the spacebar the entire file may have already been sent to the

modem at 19200, but the modem is sending it to him at perhaps 2400 baud.

We have also included HST setup files with the modem not locked, one which is locked at 19,200, and one at 38,400 baud for the new "dual-standard" HST.



## APPENDIX B - ANSI CODES (colors only) and DOS COLORS

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	ANSI CODE	DOS COLOR #
Erase display	ESC [2J	
ALL ATTR. OFF	ESC [0m	
BOLD ON	ESC [1m	add 8 to color #
UNDERSCORE ON		
(IBM Mono ONLY)	ESC [4m	
BLINK ON	ESC [5m	add 128 to color #
REVERSE VIDEO ON	ESC [7m	
CANCEL ON (invisible)	ESC [8m	

### FOREGROUND

BLACK FG	ESC [30m	0
RED FG	ESC [31m	4 (bold = 12)
GREEN FG	ESC [32m	2 (bold = 10)
YELLOW FG	ESC [33m	6 (bold = 14)
BLUE FG	ESC [34m	1 (bold = 9)
MAGENTA FG	ESC [35m	5 (bold = 13)
CYAN FG	ESC [36m	3 (bold = 11)
WHITE FG	ESC [37m	7 (bold = 15)

### BACKGROUND

BLACK BG	ESC [40m
RED BG	ESC [41m
GREEN BG	ESC [42m
YELLOW BG	ESC [43m
BLUE BG	ESC [44m
MAGENTA BG	ESC [45m
CYAN BG	ESC [46m
WHITE BG	ESC [47m

Additional ANSI codes are also available for cursor movement and other functions.



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**FILES IN ALPHABETICAL ORDER**


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NAME	COLOR	LOCATION	CREATOR	TYPE
ACTIVITY.HST	- NONE -	STARTUP	S-PRO!	Non-readable data
ACTIVITY.LOG	- NONE -	STARTUP	WILDCAT!	ASCII text
AFTERDOS.BBS	AFTERDOS.SCR	DISPLAY	Sysop	ASCII & ANSI
ALL.OK	- NONE -	PROTOCOL	Sysop	ASCII text
ALT#.BBS	ALT#.SCR	DISPLAY	Sysop	ASCII & ANSI
BADFILES.BBS	- NONE -	DISPLAY	Sysop	ASCII text
BADFILES.LST	- NONE -	STARTUP	Sysop	ASCII text
BADNAMES.BBS	- NONE -	DISPLAY	Sysop	ASCII text
BADNAMES.LST	- NONE -	STARTUP	Sysop	ASCII text
BEGPAGE.BBS	BEGPAGE.SCR	DISPLAY	Sysop	ASCII & ANSI
BIRTHDAY.BBS	BIRTHDAY.SCR	DISPLAY	Sysop	ASCII & ANSI
BULL#.BBS	BULL#.SCR	BULLETIN	Sysop	ASCII & ANSI
BULLETIN.BBS	BULLETIN.SCR	BULLETIN	Sysop	ASCII & ANSI
CALLINFO.BBS	- NONE -	STARTUP	WILDCAT!	Non-readable data
CAT.BAT	- NONE -	STARTUP	Sysop	ASCII text
CHAT.###	- NONE -	MASTER	WILDCAT!	ASCII text
CHAT.GRP	- NONE -	MASTER	WILDCAT!	ASCII text
CHAT.HLP	CHATC.HLP	HELP	Sysop	ASCII & ANSI
CHATCMD.HLP	CHATCMDC.HLP	HELP	Sysop	ASCII & ANSI
CLOSED.BBS	- NONE -	DISPLAY	Sysop	ASCII text
COMMENTS.BBS	COMMENTS.SCR	DISPLAY	Sysop	ASCII & ANSI
CONFIGWC.BBS	- NONE -	STARTUP	MAKEWILD	Non-readable data
DLIMIT.BBS	DLIMIT.SCR	DISPLAY	Sysop	ASCII & ANSI
DLKLIMIT.BBS	DLKLIMIT.SCR	DISPLAY	Sysop	ASCII & ANSI
DOOR#.BAT	- NONE -	STARTUP	Sysop	ASCII text
DOOR.DAT	- NONE -	DOOR	MAKEWILD	Non-readable data
DOORS.BBS	DOORS.SCR	DOOR	Sysop	ASCII & ANSI
DOORTEST.EXE	- NONE -	DOOR	WILDCAT!	Program
DOWNLDOK.BBS	DOWNLDOK.SCR	DISPLAY	Sysop	ASCII & ANSI
DOWNLOAD.HST	- NONE -	STARTUP	S-PRO!	Non-readable data
DROPDOS.BAT	- NONE -	STARTUP	Sysop	ASCII text
EDITMSG.HLP	EDITMSGC.HLP	HELP	Sysop	ASCII & ANSI
ENDPAGE.BBS	ENDPAGE.SCR	DISPLAY	Sysop	ASCII & ANSI
ERROR.LOG	- NONE -	STARTUP	WILDCAT!	ASCII text
F-PRO!.RPT	- NONE -	STARTUP	F-PRO!	ASCII text
FILE#.BBS	FILE#.SCR	MENU	Sysop	ASCII & ANSI
FILE#.HLP	FILE#C.HLP	HELP	Sysop	ASCII & ANSI

## Appendix C - WILDCAT! Files

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NAME	COLOR	LOCATION	CREATOR	TYPE
FILE.BBS	FILE.SCR	MENU	Sysop	ASCII & ANSI
FILE.HLP	FILEC.HLP	HELP	Sysop	ASCII & ANSI
FILESPEC.DAT	- NONE -	DATAFILE	WILDCAT!	Non-readable data
FILESPEC.DIA	- NONE -	DATAFILE	WILDCAT!	Non-readable data
FILESPEC.IX	- NONE -	DATAFILE	WILDCAT!	Non-readable data
GOODBYE.BBS	GOODBYE.SCR	DISPLAY	Sysop	ASCII & ANSI
HELLO#.BBS	HELLO#.SCR	DISPLAY	Sysop	ASCII & ANSI
HOTKEY.BBS	- NONE -	DISPLAY	Sysop	ASCII text
LASTCALL.BBS	- NONE -	STARTUP	WILDCAT!	ASCII text
LIVEPRO.HST	- NONE -	STARTUP	S-PRO!	Non-readable data
MAIN#.BBS	MAIN#.SCR	MENU	Sysop	ASCII & ANSI
MAIN#.HLP	MAIN#C.HLP	HELP	Sysop	ASCII & ANSI
MAIN.BBS	MAIN.SCR	MENU	Sysop	ASCII & ANSI
MAIN.HLP	MAINC.HLP	HELP	Sysop	ASCII & ANSI
MAKEQUES.EXE	- NONE -	WILDCAT!	WILDCAT!	Program
MAKEWILD.EXE	- NONE -	WILDCAT!	WILDCAT!	Program
MASTER.DAT	- NONE -	MASTER	WILDCAT!	Non-readable data
MESSAGE.DAT	- NONE -	DATAFILE	WILDCAT!	Non-readable data
MSG#.BBS	MSG#.SCR	MENU	Sysop	ASCII & ANSI
MSG#.HLP	MSG#C.HLP	HELP	Sysop	ASCII & ANSI
MSG.BBS	MSG.SCR	MENU	Sysop	ASCII & ANSI
MSG.HLP	MSGC.HLP	HELP	Sysop	ASCII & ANSI
MSGFILE.DAT	- NONE -	DATAFILE	WILDCAT!	Non-readable data
MSGFILE.DIA	- NONE -	DATAFILE	WILDCAT!	Non-readable data
MSGFILE.IX	- NONE -	DATAFILE	WILDCAT!	Non-readable data
NEWSLTR.BBS	NEWSLTR.SCR	DISPLAY	Sysop	ASCII & ANSI
NEWUSER.BBS	NEWUSER.SCR	DISPLAY	Sysop	ASCII & ANSI
NO-#.BBS	NO-#.SCR	DISPLAY	Sysop	ASCII & ANSI
NO300.BBS	NO300.SCR	DISPLAY	Sysop	ASCII & ANSI
NODE#.BBS	NODE#.SCR	DISPLAY	Sysop	ASCII & ANSI
NODEINFO.DAT	- NONE -	MASTER	WILDCAT!	Non-readable data
PAGED.BBS	PAGED.SCR	DISPLAY	Sysop	ASCII & ANSI
PAGED.CAP	- NONE -	STARTUP	WILDCAT!	ASCII
PRECHAT.BBS	PRECHAT.SCR	DISPLAY	Sysop	ASCII & ANSI
PREDOWN.BBS	PREDOWN.SCR	DISPLAY	Sysop	ASCII & ANSI
PREGROUP.BBS	PREGROUP.SCR	DISPLAY	Sysop	ASCII & ANSI
PRELOG.BBS	- NONE -	DISPLAY	Sysop	ASCII text
PREPRIV.BBS	PREPRIV.SCR	DISPLAY	Sysop	ASCII & ANSI
PREUP.BBS	PREUP.SCR	DISPLAY	Sysop	ASCII & ANSI
PROTO.HLP	PROTOC.HLP	HELP	Sysop	ASCII & ANSI
PROTOCOL.BBS	PROTOCOL.SCR	DISPLAY	Sysop	ASCII & ANSI



NAME	COLOR	LOCATION	CREATOR	TYPE
PROTOCOL.HST	- NONE -	STARTUP	S-PRO!	Non-readable data
QDONE#.BBS	QDONE#.SCR	QUESTION	Sysop	ASCII & ANSI
QDONECLO.BBS	QDONECLO.SCR	QUESTION	Sysop	ASCII & ANSI
QDONENEW.BBS	QDONENEW.SCR	QUESTION	Sysop	ASCII & ANSI
QSEC#.BBS	QSEC#.SCR	DISPLAY	Sysop	ASCII & ANSI
QUES#.ANS	- NONE -	STARTUP	WILDCAT!	ASCII text
QUES#.BBS	- NONE -	QUESTION	MAKEQUES	Non-readable data
QUESCLOSE.BBS	- NONE -	QUESTION	MAKEQUES	Non-readable data
QUESNEW.BBS	- NONE -	QUESTION	MAKEQUES	Non-readable data
QUESTION.BBS	QUESTION.SCR	QUESTION	Sysop	ASCII & ANSI
QUOTES.BBS	- NONE -	DISPLAY	Sysop	ASCII text
RATIO.BBS	RATIO.SCR	DISPLAY	Sysop	ASCII & ANSI
S-PRO!.BBS	S-PRO!.SCR	STARTUP	S-PRO!	ASCII & ANSI
SCHED.BBS	- NONE -	STARTUP	WILDCAT!	Non-readable data
SEC#.BBS	SEC#.SCR	DISPLAY	Sysop	ASCII & ANSI
SECERROR.BBS	SECERROR.SCR	DISPLAY	Sysop	ASCII & ANSI
SYSOP#.BBS	SYSOP#.SCR	MENU	Sysop	ASCII & ANSI
SYSOP#.HLP	SYSOP#.C.HLP	HELP	Sysop	ASCII & ANSI
SYSOP.BBS	SYSOP.SCR	MENU	Sysop	ASCII & ANSI
SYSOP.HLP	SYSOPC.HLP	HELP	Sysop	ASCII & ANSI
TEST-SCR.BBS	- NONE -	DISPLAY	Sysop	ASCII text
TRANSFER.BAD	- NONE -	PROTOCOL	Sysop	ASCII text
UPLOADOK.BBS	UPLOADOK.SCR	DISPLAY	Sysop	ASCII & ANSI
USER#.BBS	USER#.SCR	DISPLAY	Sysop	ASCII & ANSI
USERFILE.DAT	- NONE -	DATAFILE	WILDCAT!	Non-readable data
USERFILE.DIA	- NONE -	DATAFILE	WILDCAT!	Non-readable data
USERFILE.IX	- NONE -	DATAFILE	WILDCAT!	Non-readable data
VIEWCHAT.EXE	- NONE -	WILDCAT!	WILDCAT!	Program
VIEWCOMP.BAT	- NONE -	STARTUP	Sysop	ASCII text
VIEWCOMP.DAT	- NONE -	STARTUP	Sysop	ASCII text
WILDCAT.EXE	- NONE -	WILDCAT!	WILDCAT!	Program
WILDCAT.OVR	- NONE -	WILDCAT!	WILDCAT!	Program
xxxxxxxx.MDM	- NONE -	WILDCAT!	WILDCAT!	Non-readable data

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**FILES IN GROUPS BY LOCATION**

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**DISPLAY**

NAME	COLOR	CREATOR	TYPE
AFTERDOS.BBS	AFTERDOS.SCR	Sysop	ASCII & ANSI
ALT#.BBS	ALT#.SCR	Sysop	ASCII & ANSI
BADFILES.BBS	- NONE -	Sysop	ASCII text
BADNAMES.BBS	- NONE -	Sysop	ASCII text
BEGPAGE.BBS	BEGPAGE.SCR	Sysop	ASCII & ANSI
BIRTHDAY.BBS	BIRTHDAY.SCR	Sysop	ASCII & ANSI
CLOSED.BBS	- NONE -	Sysop	ASCII text
COMMENTS.BBS	COMMENTS.SCR	Sysop	ASCII & ANSI
DLIMIT.BBS	DLIMIT.SCR	Sysop	ASCII & ANSI
DLKLIMIT.BBS	DLKLIMIT.SCR	Sysop	ASCII & ANSI
DOWNLDOK.BBS	DOWNLDOK.SCR	Sysop	ASCII & ANSI
ENDPAGE.BBS	ENDPAGE.SCR	Sysop	ASCII & ANSI
GOODBYE.BBS	GOODBYE.SCR	Sysop	ASCII & ANSI
HELLO#.BBS	HELLO#.SCR	Sysop	ASCII & ANSI
HOTKEY.BBS	- NONE -	Sysop	ASCII text
NEWSLTR.BBS	NEWSLTR.SCR	Sysop	ASCII & ANSI
NEWUSER.BBS	NEWUSER.SCR	Sysop	ASCII & ANSI
NO-#.BBS	NO-#.SCR	Sysop	ASCII & ANSI
NO300.BBS	NO300.SCR	Sysop	ASCII & ANSI
NODE#.BBS	NODE#.SCR	Sysop	ASCII & ANSI
PAGED.BBS	PAGED.SCR	Sysop	ASCII & ANSI
PRECHAT.BBS	PRECHAT.SCR	Sysop	ASCII & ANSI
PREDOWN.BBS	PREDOWN.SCR	Sysop	ASCII & ANSI
PREGROUP.BBS	PREGROUP.SCR	Sysop	ASCII & ANSI
PRELOG.BBS	- NONE -	Sysop	ASCII text
PREPRIV.BBS	PREPRIV.SCR	Sysop	ASCII & ANSI
PREUP.BBS	PREUP.SCR	Sysop	ASCII & ANSI
PROTOCOL.BBS	PROTOCOL.SCR	Sysop	ASCII & ANSI
QSEC#.BBS	QSEC#.SCR	Sysop	ASCII & ANSI
QUOTES.BBS	- NONE -	Sysop	ASCII text
RATIO.BBS	RATIO.SCR	Sysop	ASCII & ANSI
SEC#.BBS	SEC#.SCR	Sysop	ASCII & ANSI
SECERROR.BBS	SECERROR.SCR	Sysop	ASCII & ANSI
TEST-SCR.BBS	- NONE -	Sysop	ASCII text
UPLOADOK.BBS	UPLOADOK.SCR	Sysop	ASCII & ANSI

<b>NAME</b>	<b>COLOR</b>	<b>CREATOR</b>	<b>TYPE</b>
USER#.BBS	USER#.SCR	Sysop	ASCII & ANSI

### **MENU**

FILE#.BBS	FILE#.SCR	Sysop	ASCII & ANSI
FILE.BBS	FILE.SCR	Sysop	ASCII & ANSI
MAIN#.BBS	MAIN#.SCR	Sysop	ASCII & ANSI
MAIN.BBS	MAIN.SCR	Sysop	ASCII & ANSI
MSG#.BBS	MSG#.SCR	Sysop	ASCII & ANSI
MSG.BBS	MSG.SCR	Sysop	ASCII & ANSI
SYSOP#.BBS	SYSOP#.SCR	Sysop	ASCII & ANSI
SYSOP.BBS	SYSOP.SCR	Sysop	ASCII & ANSI

### **HELP**

CHAT.HLP	CHATC.HLP	Sysop	ASCII & ANSI
CHATCMD.HLP	CHATCMD.C.HLP	Sysop	ASCII & ANSI
EDITMSG.HLP	EDITMSGC.HLP	Sysop	ASCII & ANSI
FILE#.HLP	FILE#C.HLP	Sysop	ASCII & ANSI
FILE.HLP	FILEC.HLP	Sysop	ASCII & ANSI
MAIN#.HLP	MAIN#C.HLP	Sysop	ASCII & ANSI
MAIN.HLP	MAINC.HLP	Sysop	ASCII & ANSI
MSG#.HLP	MSG#C.HLP	Sysop	ASCII & ANSI
MSG.HLP	MSGC.HLP	Sysop	ASCII & ANSI
PROTO.HLP	PROT.C.HLP	Sysop	ASCII & ANSI
SYSOP#.HLP	SYSOP#C.HLP	Sysop	ASCII & ANSI
SYSOP.HLP	SYSOPC.HLP	Sysop	ASCII & ANSI

### **PROTOCOL**

ALL.OK	- NONE -	Sysop	ASCII text
TRANSFER.BAD	- NONE -	Sysop	ASCII text
ZUP.BAT	- NONE -	Sysop	ASCII text

### **BULLETIN**

BULL#.BBS	BULL#.SCR	Sysop	ASCII & ANSI
BULLETIN.BBS	BULLETIN.SCR	Sysop	ASCII & ANSI

## QUESTIONNAIRE

NAME	COLOR	CREATOR	TYPE
QDONE#.BBS	QDONE#.SCR	Sysop	ASCII & ANSI
QDONECLO.BBS	QDONECLO.SCR	Sysop	ASCII & ANSI
QDONENEW.BBS	QDONENEW.SCR	Sysop	ASCII & ANSI
QUES#.BBS	- NONE -	MAKEQUES	Non-readable data
QUESCLOSE.BBS	- NONE -	MAKEQUES	Non-readable data
QUESNEW.BBS	- NONE -	MAKEQUES	Non-readable data
QUESTION.BBS	QUESTION.SCR	Sysop	ASCII & ANSI

## DATAFILE

FILESPEC.DAT	- NONE -	WILDCAT!	Non-readable data
FILESPEC.DIA	- NONE -	WILDCAT!	Non-readable data
FILESPEC.IX	- NONE -	WILDCAT!	Non-readable data
MESSAGE.DAT	- NONE -	WILDCAT!	Non-readable data
MSGFILE.DAT	- NONE -	WILDCAT!	Non-readable data
MSGFILE.DIA	- NONE -	WILDCAT!	Non-readable data
MSGFILE.IX	- NONE -	WILDCAT!	Non-readable data
USERFILE.DAT	- NONE -	WILDCAT!	Non-readable data
USERFILE.DIA	- NONE -	WILDCAT!	Non-readable data
USERFILE.IX	- NONE -	WILDCAT!	Non-readable data

## MASTER

CHAT.###	- NONE -	WILDCAT!	ASCII text
CHAT.GRP	- NONE -	WILDCAT!	ASCII text
MASTER.DAT	- NONE -	WILDCAT!	Non-readable data
NODEINFO.DAT	- NONE -	WILDCAT!	Non-readable data

## DOOR

DOOR#.BAT	- NONE -	Sysop	ASCII text
DOOR.DAT	- NONE -	MAKEWILD	Non-readable data
DOORS.BBS	DOORS.SCR	Sysop	ASCII & ANSI

## STARTUP

ACTIVITY.HST	- NONE -	S-PRO!	Non-readable data
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## Appendix C - WILDCAT! Files

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NAME	COLOR	CREATOR	TYPE
ACTIVITY.LOG	- NONE -	WILDCAT!	ASCII text
BADFILES.LST	- NONE -	Sysop	ASCII text
BADNAMES.LST	- NONE -	Sysop	ASCII text
CALLINFO.BBS	- NONE -	WILDCAT!	Non-readable data
CAT.BAT	- NONE -	Sysop	ASCII text
CONFIGWC.BBS	- NONE -	MAKEWILD	Non-readable data
DOWNLOAD.HST	- NONE -	S-PRO!	Non-readable data
DROPDOS.BAT	- NONE -	Sysop	ASCII text
ERROR.LOG	- NONE -	WILDCAT!	ASCII text
F-PRO!.RPT	- NONE -	F-PRO!	ASCII text
LASTCALL.BBS	- NONE -	WILDCAT!	ASCII text
LIVEPRO.HST	- NONE -	S-PRO!	Non-readable data
PAGED.CAP	- NONE -	WILDCAT!	ASCII text
PROTOCOL.HST	- NONE -	S-PRO!	Non-readable data
QUES#.ANS	- NONE -	WILDCAT!	ASCII text
S-PRO!.BBS	S-PRO!.SCR	S-PRO!	ASCII & ANSI
SCHED.BBS	- NONE -	WILDCAT!	Non-readable data
VIEWCOMP.BAT	- NONE -	Sysop	ASCII text
VIEWCOMP.DAT	- NONE -	Sysop	ASCII text

## WILDCAT!

MAKEQUES.EXE	- NONE -	WILDCAT!	Program
MAKEWILD.EXE	- NONE -	WILDCAT!	Program
PRO! Series	- NONE -	WILDCAT!	Program
VIEWCHAT.EXE	- NONE -	WILDCAT!	Program
WILDCAT.EXE	- NONE -	WILDCAT!	Program
WILDCAT.OVR	- NONE -	WILDCAT!	Program
xxxxxxxx.MDM	- NONE -	WILDCAT!	Non-readable data

## FILES BY CREATOR

### Sysop

NAME	COLOR	LOCATION	TYPE
AFTERDOS.BBS	AFTERDOS.SCR	DISPLAY	ASCII & ANSI
ALL.OK	- NONE -	PROTOCOL	ASCII text
ALT#.BBS	ALT#.SCR	DISPLAY	ASCII & ANSI
BADFILES.BBS	- NONE -	DISPLAY	ASCII text
BADFILES.LST	- NONE -	STARTUP	ASCII text
BADNAMES.BBS	- NONE -	DISPLAY	ASCII text
BADNAMES.LST	- NONE -	STARTUP	ASCII text
BEGPAGE.BBS	BEGPAGE.SCR	DISPLAY	ASCII & ANSI
BIRTHDAY.BBS	BIRTHDAY.SCR	DISPLAY	ASCII & ANSI
BULL#.BBS	BULL#.SCR	BULLETIN	ASCII & ANSI
BULLETIN.BBS	BULLETIN.SCR	BULLETIN	ASCII & ANSI
CAT.BAT	- NONE -	STARTUP	ASCII text
CHAT.HLP	CHATC.HLP	HELP	ASCII & ANSI
CHATCMD.HLP	CHATCMD.C.HLP	HELP	ASCII & ANSI
CLOSED.BBS	- NONE -	DISPLAY	ASCII text
COMMENTS.BBS	COMMENTS.SCR	DISPLAY	ASCII & ANSI
DLIMIT.BBS	DLIMIT.SCR	DISPLAY	ASCII & ANSI
DLKLIMIT.BBS	DLKLIMIT.SCR	DISPLAY	ASCII & ANSI
DOOR#.BAT	- NONE -	DOOR	ASCII text
DOORS.BBS	DOORS.SCR	DOOR	ASCII & ANSI
DOWNLDOK.BBS	DOWNLDOK.SCR	DISPLAY	ASCII & ANSI
DROPDOS.BAT	- NONE -	STARTUP	ASCII text
EDITMSG.HLP	EDITMSG.C.HLP	HELP	ASCII & ANSI
ENDPAGE.BBS	ENDPAGE.SCR	DISPLAY	ASCII & ANSI
FILE#.BBS	FILE#.SCR	MENU	ASCII & ANSI
FILE#.HLP	FILE#.C.HLP	HELP	ASCII & ANSI
FILE.BBS	FILE.SCR	MENU	ASCII & ANSI
FILE.HLP	FILEC.HLP	HELP	ASCII & ANSI
GOODBYE.BBS	GOODBYE.SCR	DISPLAY	ASCII & ANSI
HELLO#.BBS	HELLO#.SCR	DISPLAY	ASCII & ANSI
HOTKEY.BBS	- NONE -	DISPLAY	ASCII text
MAIN#.BBS	MAIN#.SCR	MENU	ASCII & ANSI
MAIN#.HLP	MAIN#.C.HLP	HELP	ASCII & ANSI
MAIN.BBS	MAIN.SCR	MENU	ASCII & ANSI
MAIN.HLP	MAINC.HLP	HELP	ASCII & ANSI

NAME	COLOR	LOCATION	TYPE
MSG#.BBS	MSG#.SCR	MENU	ASCII & ANSI
MSG#.HLP	MSG#C.HLP	HELP	ASCII & ANSI
MSG.BBS	MSG.SCR	MENU	ASCII & ANSI
MSG.HLP	MSGC.HLP	HELP	ASCII & ANSI
NEWSLTR.BBS	NEWSLTR.SCR	DISPLAY	ASCII & ANSI
NEWUSER.BBS	NEWUSER.SCR	DISPLAY	ASCII & ANSI
NO-#.BBS	NO-#.SCR	DISPLAY	ASCII & ANSI
NO300.BBS	NO300.SCR	DISPLAY	ASCII & ANSI
NODE#.BBS	NODE#.SCR	DISPLAY	ASCII & ANSI
PAGED.BBS	PAGED.SCR	DISPLAY	ASCII & ANSI
PRECHAT.BBS	PRECHAT.SCR	DISPLAY	ASCII & ANSI
PREDOWN.BBS	PREDOWN.SCR	DISPLAY	ASCII & ANSI
PREGROUP.BBS	PREGROUP.SCR	DISPLAY	ASCII & ANSI
PRELOG.BBS	- NONE -	DISPLAY	ASCII text
PREPRIV.BBS	PREPRIV.SCR	DISPLAY	ASCII & ANSI
PREUP.BBS	PREUP.SCR	DISPLAY	ASCII & ANSI
PROTO.HLP	PROTOD.HLP	HELP	ASCII & ANSI
PROTOCOL.BBS	PROTOCOL.SCR	DISPLAY	ASCII & ANSI
QDONE#.BBS	QDONE#.SCR	QUESTION	ASCII & ANSI
QDONECLO.BBS	QDONECLO.SCR	QUESTION	ASCII & ANSI
QDONENNEW.BBS	QDONENNEW.SCR	QUESTION	ASCII & ANSI
QSEC#.BBS	QSEC#.SCR	DISPLAY	ASCII & ANSI
QUESTION.BBS	QUESTION.SCR	QUESTION	ASCII & ANSI
QUOTES.BBS	- NONE -	DISPLAY	ASCII text
RATIO.BBS	RATIO.SCR	DISPLAY	ASCII & ANSI
SEC#.BBS	SEC#.SCR	DISPLAY	ASCII & ANSI
SECERROR.BBS	SECERROR.SCR	DISPLAY	ASCII & ANSI
SYSOP#.BBS	SYSOP#.SCR	MENU	ASCII & ANSI
SYSOP#.HLP	SYSOP#C.HLP	HELP	ASCII & ANSI
SYSOP.BBS	SYSOP.SCR	MENU	ASCII & ANSI
SYSOP.HLP	SYSOPC.HLP	HELP	ASCII & ANSI
TEST.SCR.BBS	- NONE -	DISPLAY	ASCII text
TRANSFER.BAD	- NONE -	PROTOCOL	ASCII text
UPLOADOK.BBS	UPLOADOK.SCR	DISPLAY	ASCII & ANSI
USER#.BBS	USER#.SCR	DISPLAY	ASCII & ANSI
VIEWCOMP.BAT	- NONE -	STARTUP	ASCII text
VIEWCOMP.DAT	- NONE -	STARTUP	ASCII text

## WILDCAT!

ACTIVITY.LOG	- NONE -	NODE HOME	ASCII text
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NAME	COLOR	LOCATION	TYPE
CALLINFO.BBS	- NONE -	NODE HOME	Non-readable data
CHAT.###	- NONE -	MASTER	ASCII text
CHAT.GRP	- NONE -	MASTER	ASCII text
ERROR.LOG	- NONE -	STARTUP	ASCII text
FILESPEC.DAT	- NONE -	DATAFILE	Non-readable data
FILESPEC.DIA	- NONE -	DATAFILE	Non-readable data
FILESPEC.IX	- NONE -	DATAFILE	Non-readable data
MAKEWILD.EXE	- NONE -	WILDCAT!	Program
MASTER.DAT	- NONE -	MASTER	Non-readable data
MESSAGE.DAT	- NONE -	DATAFILE	Non-readable data
MSGFILE.DAT	- NONE -	DATAFILE	Non-readable data
MSGFILE.DIA	- NONE -	DATAFILE	Non-readable data
MSGFILE.IX	- NONE -	DATAFILE	Non-readable data
NODEINFO.DAT	- NONE -	MASTER	Non-readable data
PAGED.CAP	- NONE -	STARTUP	
QUES#.ANS	- NONE -	STARTUP	ASCII text
SCHED.BBS	- NONE -	STARTUP	Non-readable data
USERFILE.DAT	- NONE -	DATAFILE	Non-readable data
USERFILE.DIA	- NONE -	DATAFILE	Non-readable data
USERFILE.IX	- NONE -	DATAFILE	Non-readable data
VIEWCHAT.EXE	- NONE -	WILDCAT!	Program
WILDCAT.EXE	- NONE -	WILDCAT!	Program
WILDCAT.OVR	- NONE -	WILDCAT!	Program
xxxxxxx.MDM	- NONE -	WILDCAT!	Non-readable data

### MAKEWILD

CONFIGWC.BBS	- NONE -	STARTUP	Non-readable data
DOOR.DAT	- NONE -	DOOR	Non-readable data

### MAKEQUES

QUES#.BBS	- NONE -	QUESTION	Non-readable data
QUESCLOSE.BBS	- NONE -	QUESTION	Non-readable data
QUESNEW.BBS	- NONE -	QUESTION	Non-readable data

### S-PRO!

ACTIVITY.HST	- NONE -	STARTUP	Non-readable data
DOWNLOAD.HST	- NONE -	STARTUP	Non-readable data



<b>NAME</b>	<b>COLOR</b>	<b>LOCATION</b>	<b>TYPE</b>
LIVEPRO.HST	- NONE -	STARTUP	Non-readable data
PROTOCOL.HST	- NONE -	STARTUP	Non-readable data
S-PRO!.BBS	S-PRO!.SCR	STARTUP	ASCII & ANSI

### **F-PRO!**

F-PRO!.RPT	- NONE -	STARTUP	ASCII text
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## APPENDIX D - ERRORS AND TROUBLESHOOTING

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Setting up a bulletin board program isn't always an easy task. Due to the complex configuration necessary involving the modem, computer and program, the end result is often not achieved the first time. If you are having difficulty the following section may be of help.

### **Most Commonly Asked Questions:**

- Q- When I start WILDCAT! it seems like it tries to initialize the modem, but displays a message that "Modem carrier detected; must lower to continue...".**
- A- Your modem setting for Carrier Detect (CD) is probably forced "ON". Change the appropriate dip switch to "NORMAL CD". Some modems without switches use the &C1 command to perform this function. This message means that *WILDCAT!* thinks a call is in progress! If you have no switches, add &C1 to your modem string. See [Appendix A - Modems](#) for more information.
- Q- Things work fine, but when callers try to say Goodbye, WILDCAT! just sends the menu to them again & doesn't hang up!**
- A- Your modem has the DTR (Data Terminal Ready) line forced ON. Change the appropriate dip switch to "NORMAL DTR". Some modems without switches need to include the &D2 command in the startup string to perform this function. See [Appendix A - Modems](#) for more information.

**Q- WILDCAT! answers the phone and the caller gets connected but gets no response. WILDCAT! displays a message "Determining Baud Rate...".**

A- You have apparently set *WILDCAT!* to determine baud by result codes, and it isn't getting codes that it can identify. First, check to be sure that you are sending NUMERIC codes, best set in the call initialization string with V0 (thats zero). Also check your modem to make sure the dip switch is also set for numeric. If you are sending numeric codes, then check the numbers in MAKEWILD for each baud rate against your modem manual. Also make sure that your delays are set high enough in questions 4-6, try increasing each to 2500. Lastly, perhaps your modem will only send different numeric codes for each baud rate if EXTENDED codes are requested. Extended codes are usually activated with the AT command Xn, where n is a number from 1 to about 7. Consult your modem manual.

**Q- Why am I considered a New user when I first log on?**

A- See the section on the user database. Remember, until you have logged on the first time and used the F9 key to upgrade your security to that of sysop, *WILDCAT!* has never heard of you!

**Q- WILDCAT! seems to run OK, but I get an error 203 or 204 that talks about a heap/stack problem after it gets going.**

A- Both these numbers indicate a Heap/Stack Collision. Most of the time it simply means that you are attempting to run *WILDCAT!* without enough memory available. If you have any utilities in memory such as Sidekick, remove them one at a time until the program functions properly, or increase memory to 640 K.

**Q- After WILDCAT! gets started it gives me an error 4.**

A- Error 4 is a Turbo Pascal indication that too many files are open at one time. The problem is almost always the omission of the statement "FILES=40" from the CONFIG.SYS file. See System Requirements.

**Q- When I try to use ALT-D to drop to DOS locally, I find that I don't have enough memory.**

A- Since ALT-D performs a "shell" to invoke another copy of the command processor (DOS), there needs to be enough memory available for the second copy of DOS. If sufficient memory is not found, the request is ignored. Remember, any memory resident programs will reduce the memory available. DOS requires from 50K to 80K to invoke the second command processor. You may use MAKEWILD to specify that the system should swap to DISK or EMS whenever a shell is performed, which will allow ALT-D even with little memory remaining.

**Q- What is the difference between SYSTEM CRASH errors and NON-FATAL errors? What should I do about them?**

A- SYSTEM CRASH errors indicate that *WILDCAT!* was unable to recover and exited with an errorlevel of 1. If your CAT.BAT file was set up correctly, it was automatically restarted. These errors are listed in the ERROR.LOG and are accompanied by a description, location, date and time, and often with a suggestion for repair of a problem.

Non-Fatal errors indicate a problem was encountered that was not serious enough to stop operation. These errors usually include a brief explanation of the error, often enough to enable the sysop to make a correction in the configuration. An example is when the command line length exceeds 128 characters in an external protocol. This is posted as a non-fatal error as a notice that the line length was truncated, but requires no action on the sysops part, except perhaps to shorten the EP path to prevent long command lines.

If you encounter repeated errors which are unexplained, call technical support.

**Q- My callers get a message that a door or netmail is always “in use by another node”, and can’t be accessed? No one else is connected?**

A- Your DOOR.DAT file has flagged that particular door or netmail (door 0) as in use. This can happen if a node had a problem and a door doesn't reset properly. To repair it, take all nodes down, run WCREPAIR and edit the DOOR info file, changing the “in use” flag to “N” and saving it with CTRL ENTER.

**Q- Renumber messages doesn't work! Whats wrong?**

A- Renumbering messages can only be done if all nodes are DOWN; not in EVENT 60 or ECHOMAIL, but really DOWN.

To check the status, take all nodes down (as best you can) and run WCREPAIR. Edit the Master file, moving the cursor to the second line labeled Active Nodes, and press [ENTER]. If a dot appears next to any node number it is NOT down. Move to the node number and press [ENTER] to remove the active dot, then press ESC to return to the previous screen and save the change with CTRL ENTER.

**Q- The total number of calls in not correct! How do I fix it?**

A- Take all nodes down and run WCREPAIR. Edit the Master file and change the number of calls to the correct value. Press CTRL ENTER to save the change.

**Q- When callers use [W]ho is on other nodes or I use CATEYE to look at the node activity the information is totally out of order and doesn't make sense. Whats happened?**

A- Somehow your NODEINFO.DAT file has become damaged. Take all nodes down and try to edit the Node info file with WCREPAIR. If the information is too badly scrambled, simply exit WCREPAIR and delete the NODEINFO.DAT file. Bring up one node and let WILDCAT! re-create a fresh NODEINFO.DAT, then activate the additional nodes, if any.

**Q- When I view the node information with CATEYE, WCREPAIR, or [W]ho is online, it shows node numbers that are totally out of order and incorrect.**

A- Somehow, NODEINFO.DAT has become damaged. Take all nodes down and run WCREPAIR and edit the NODEINFO file. Use PgDn to display any incorrect node information and change it to a proper value. Press CTRL-ENTER to save your changes. If this fails, simply delete NODEINFO.DAT while no nodes are active. WILDCAT! will re-create it properly when the first node is started, but you MUST start a single node and allow it to create it prior to starting additional nodes.

**Q- Someone tries to log on and the system tells them they can't because someone is already logged on using that name.**

A - Take all nodes down, run WCREPAIR and check the NODEINFO.DAT file. Review all active nodes and find the one with the name marked as LOGGED IN in the status area, Move yor cursor to the LOGGED IN field and press the spacebar until it reads DOWN. Save the changes with CTRL ENTER.

**Q- I have a CD-ROM drive and it doesn't properly access the files on the disk.**

A - Several CD-ROM owners have reported this problem. We have discovered and confirmed a bug in the Microsoft MSCDX driver which prevents opening a file in Full Share Mode, a requirement for true Network Applications. The driver does behave well when opened in Share - Read Only mode, an alternative that can be implemented. If you have a CD-ROM making use of Microsoft's MSCDX drive to provide standard DOS access, make use of the optional command line switch /CD to implement the alternative file mode. **WILDCAT /CD**





## RECORD AND TYPE DECLARATIONS

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Although the source code is not distributed, the file formats for *WILDCAT!* are available. They are included in order to assist third party developers in creating utilities and doors specifically for *WILDCAT!*.

The complete record and type declarations in Turbo Pascal 5.5 for *WILDCAT!*'s operation are contained in the disk file WC20REC.TYP contained on your distribution diskette. It includes the file and record locking information for *WILDCAT!* v2.00. Note that this structure is the same for all 3 versions ('S', 'N', 'P').

*WILDCAT!* supports true record locking using specific database code. This means a correctly written utility may be designed to run while other *WILDCAT!* nodes are up and accepting calls. This specific code is not a requirement for third party programs however. If a utility is simply going to create a report, the program would not need to make use of our special database structures, but would simply have to make certain that the FileMode is opened in Share ReadOnly (40h) when the data files are read.

If you want to write full blown *WILDCAT!* utilities, you will need to purchase the same BTree File Management program used by *WILDCAT!*. The Package is called **BTree Filer**, and may be purchased directly from **Turbo Power Software**, P.O. Box 66747, Scotts Valley, CA, 95066 Voice (408) 438-8608, CompuServe 72457,2131. Please be sure to mention you're a *WILDCAT!* program developer when placing your order and ask them about the *WILDCAT!* developer's Special.

*WILDCAT!* has undergone a MAJOR REVISION with version 2.0. Like every version since version 1.0, it is faster and requires less memory then its predecessor. These improvements have come at a cost however. Any 3rd party utility

written for *WILDCAT!* which reads the DATABASE files, will have to be upgraded. Doors written for *WILDCAT!* v1.1x should NOT require any modification in most cases.

Review the file **WC20REC.TYP** on your distribution diskette for complete record structures. It is an ASCII file, but contains lines longer than 80 characters and will not print properly if simply copied to the printer. It is a direct capture of portions of the *WILDCAT!* program code, and was created from within the source code editing environment.

## APPENDIX F - WILDCAT! SUPPORT PROGRAMS

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### ADDFILES

ADDFILES is a utility to ease the addition of files to your file database. It is designed to help add files to the file database when a system is initially set-up, but may be used for minor maintenance. It operates by reading the files on disk for selected file areas, and add any files which do not already exist in the file database. If a file is already present, you may elect to have the date and size information in the database changed to match the information actually on disk. This process is referred to as "freshening" the database. As files are add to your *WILDCAT!* database with ADDFILES, you can enter descriptions, if desired. ADDFILES will process all file areas, or may be limited to specific locations. It is one of the easiest methods of creating a file database for the first time, or may be used for maintenance. The PRO! Series utility F-PRO! offers similar features with batch driven event operation, expanded operational parameters, and various reports.

The opening screen allows you to specify which file areas will be affected by the ADDFILES session. Use the cursor to delete letters of file areas which you do not want to process.

The next prompt allows you to confirm files prior to adding them to the database. If you are uncertain that your subdirectories contain only files to be made available, you may have ADDFILES prompt you for confirm of the addition of each by responding "Y".

ADDFILES will then ask if you want to use the date of the file on the disk as the date entered into the *WILDCAT!* file database. If you do not, the current date will be used, and this is the most common choice.

After you answer, the questions changes to:

“Do you want to freshen the database date and size to match the file date and size on any existing files? [N]”

Answering “Y” will cause ADDFILES to scan the disk for filenames that already exist in your WILDCAT! file database, and change the database date and size to match what is on the hard disk. This is a convenient way to check your file areas for updated or changed files without any manual intervention. If the file dates and sizes are the same, no modifications to the database are made, and the file is ignored. ADDFILES then asks:

“Do you want to enter descriptions for ANY new files? [N]?”

Answering “Y” will allow you to enter a 2 line file description for each new file as it is read from the hard disk and added to the file database. A “N” answer will simply add the files, but leave the descriptions blank. If you elect to enter the descriptions here, you are then asked:

“Do you want to be prompted Y/N for each new file description? [Y]”

If you answer “Y” then as each file is added it will first display the file name and then ask if you want to enter a description. You may then skip the description with a single keystroke, if desired. A “N” answer will force you to both line 1 and line 2 of the description for every file added.

Lastly ADDFILES asks how the “UPLOADED BY:” field should be completed for the files being added. The default name is SYSOP, but may be set to anything you wish.

After confirmation from the operator, ADDFILES begins processing the specified file areas, prompting for addition and descriptions as requested.

## **CONVERT**

Convert is a utility to process the text file listings of a Collie, PCBoard, RBBS or a plain directory listing of files into

*WILDCAT!*'s database format. It is designed to be used for the initial database creation process, but may be called on to add files at a later date. In many instances the use of *ADDFILES* is a better choice to add file unless the descriptions are already type in some other BBS format. *CONVERT* is primarily needed if the sysop has already compiled a list of files and descriptions in a text format.

*CONVERT* processes a text file and places the file names, sizes, dates and descriptions, if included, into the file database.

We will review the procedures after a brief discussion of the text file format that must be used. The standard file list formats of other BBS programs do not usually contain the necessary information for *WILDCAT!*'s database, and will require alteration. New sysops will probably find it easier to use the *ADDFILES* program for initial database creation.

Preparation for running *CONVERT* consists of creating a text file in each of your *WILDCAT!* download subdirectories. This text file may be a modified copy of another BBS text listing of the file information for that particular area, or the *DIR* command output. For the purpose of this documentation we will assume that the user has used *MAKEWILD* to establish two download directories, one for Utilities and one for Games. The path for Utilities is *C:\WILDCAT\UTIL* and the path for Games is *C:\WILDCAT\GAMES*. If you have another BBS text listing for each of these areas, place the file in the subdirectory and name it *FILES.BBS*.

If you don't have a text listing but want to create one rather than use *ADDFILES*, you should create one for each subdirectory after placing all the appropriate files in the subdirectory. Move all your games to *C:\WILDCAT\GAMES*, etc.. The method of creating the text file from the *DOS DIR* command entails use of re-direction of the *DIR* output to disk rather than the screen. This is accomplished by using the *>* character. The proper command line syntax is:

***DIR > FILES.BBS***

This command should be run from the games subdirectory and again from utilities. The result is a file in *EACH* area

named FILES.BBS which contains the name, extension, size, date and time on each file. It also has some header information on the drive volume label and footer information about the available space remaining. PRIOR TO PROCESSING WITH CONVERT, THIS HEADER AND FOOTER INFORMATION MUST BE DELETED with an ASCII editor. At the same time you may add a file description by beginning the first description line at character position 40, one space after the minutes. *WILDCAT!* makes use of the file time, but only needs the HH:MM. Line 2 of the description begins on character position 80.

The diagram shows a directory listing with annotations for field positions and deletion instructions. The listing is as follows:

```
Volume in drive F is SYS
Directory of F:\PUB-BBS\CAT

WILDCAT1 EXE 128304 7-13-89 7:33p
1 File(s) 125190144 bytes free
```

Annotations include:

- An arrow pointing to the first two lines of the listing with the text "Delete these lines."
- Vertical lines with arrows pointing to specific fields in the listing, labeled with their starting positions: "Filename pos. 1" points to "WILDCAT1", "Extension pos. 10" points to "EXE", "Size pos. 15" points to "128304", "Date pos. 24" points to "7-13-89", "Time pos. 34" points to "7:33p", and "Desc. line 1 pos. 40" points to the start of the second line.

Regardless of whether you are using another BBS text file listing or the DIR output, you must use an ASCII editor to delete all lines that contain any information other than files. In the above display, we have given an example from the output of the DIR command.

The FILENAME, regardless of length always starts at position one. It may be written in the older DOS manner of FILE.EXT (with all characters together, separated by a period) or the newer format of FILE followed by the EXT starting at position 10 (as shown above). If the EXT begins at position 10 there may not be a "." in any position other than 9 since CONVERT looks for either a period or a space to terminate the FILENAME and begin the extension. The Size starts at position 15 and extends to 21, and may contain commas. It should be right justified and blank positions may exist at the beginning as in our example. The Date starts at position 24

and leading zeros may be omitted for any numbers. The only valid delimiter between month-day-year is the dash (-) character. The Time begins at position 34 and must be formatted as HH:MM with no seconds. The first Description line begins at position 40 and may extend out to position 79. Any description from position 80 to 120 will appear on description line 2. File lines may be up to 120 characters long, but only one file listing per line!

We now have created a file named FILES.BBS in each of our download directories. Each reflects the names of the files in that particular area and contains nothing but one line after another of file information. To begin the conversion we start at the *WILDCAT!* file database directory, the location of the database files.

For each subdirectory that you want to convert you must run the CONVERT program. Lets use our Games subdirectory as a first example. Copy the FILES.BBS file from the Games subdirectory to the *WILDCAT!* file database area and run CONVERT.

**COPY C:\WILDCAT\GAMES\FILES.BBS C:\WILDCAT\DATAFILE  
CONVERT**

When you run CONVERT, you are reminded of the correct file format and then asked to identify how the file list should be processed. The first question asks which file area you want the file to be assigned to. Our example answer might be area G for Games. Next CONVERT asks the name of the person who should be listed as uploading the files. In most instances this will be sysop. The final question is the filename that contains the text information. We would answer FILES.BBS since that is the text file we want to process. After confirmation of the answers, CONVERT will add each file's information to the *WILDCAT!* database.

The main trick to importing your files into *WILDCAT!* is to make sure that your import text file is clean and correctly formatted. No blank lines, no header or footer information and no extra lines. **Prior to beginning MAKE A BACKUP OF YOUR DATABASE!**

### DOORTEST

DOORTEST is a small program to test the operation of doors on your system. It operates much like other door programs in that it reads your system parameters from an ASCII configuration file DOORTEST.CFG. Full instructions for DOORTEST are given in the section on DOORS in the Advanced Features chapter of the manual.

### HANDLES

This program can be run at any time to tell you the number of DOS file handles available. For proper operation it should indicate at least ten available handles prior to running WILDCAT!. It is used by our tech support department for testing.

### MAKEQUES

Makeques is used to create questionnaire files in *WILDCAT!* readable format, and is the only way to make these files. *WILDCAT!* questionnaires have the ability to "branch" to any other question at any time, perhaps to ask sysops or another group of callers another set of questions.

The easiest method of creating a questionnaire is to FIRST write down all the questions you want to ask. Put them in groups according to "branches" that are to be answered together, i.e., questions for sysops, questions for general users, questions IF an order is to be taken, questions IF a caller wants to register, etc.

Question types available are Alphanumeric, Numeric, Multiple Choice, Phone, Date, Time, Zip, State, MC/VISA, or American Express. All of the above are FORMATTED field answers except Alphanumeric & Numeric, which restrict the answer to numbers/letters/punctuation or just numbers.

Branching is allowed both forward and backward, and questions are repeated until answered with a proper response. Do



not attempt to branch to a non-existent question! Plan things out ahead of time!

Here is an example of a planning session written out:

(the numbers in parentheses refer to branch-to question numbers)

- 1. Do you want to purchase a product using a Credit Card?**  
YES - (2) NO - (14)
- 2. Do you have the card # and exp. date handy?**  
YES - (3) NO - (14)
- 3. What product do you want to order?**  
A - WILDCAT! (4)  
B - MORTPLAN (4)  
C - PRTLABEL (4)
- 4. Do you want to order another product?**  
YES - (3) NO - (5)
- 5. What name do you want it shipped to?**  
(6)
- 6. What street address?**  
(7)
- 7. What City?**  
(8)
- 8. What State?**  
(9)
- 9. What type of credit card?**  
A - VISA (10)  
B - M/C (10)
- 10. What is the card number and exp. date?**  
xxxx-xxxx-xxxx-xxxx mm-yy (11)

11. What is a voice phone during the day to verify your order?  
xxx-xxx-xxxx (12)
12. Should we PROCESS or CANCEL the above order?  
A - PROCESS (15)  
B - CANCEL (13)
13. THIS order request will NOT be processed.  
Start the order over again?  
YES - (1) NO - (14)
14. No order taken. Do you want to leave an order comment?  
YES - (16) NO - (99)
15. Your order will be processed ASAP. Do you want to leave an order comment?  
YES - (16) NO - (99)
16. Comment (line 1 of 2) (17)
17. Comment (line 2 of 2) (99)

After creating your written questionnaire you are ready to begin the MAKEQUES program. The Main menu offers several choices, one of which is to LOAD a questionnaire. A sample questionnaire named QUESTEST.BBS is included for your review. Next lets take a quick look at the MAKEQUES editor.

While using MAKEQUES the following standard editing commands may be used.

[left],[ctrl S]	- Cursor left one character
[right],[ctrl D]	- Cursor right one character
[ctrl left],[ctrl D]	- Cursor left one word
[ctrl right],[ctrl F]	- Cursor right one word
[home],[ctrl Q - S]	- Cursor to beginning of line
[end],[ctrl Q - D]	- Cursor to end of line
[del],[ctrl G]	- Delete character at cursor
[bksp],[ctrl H]	- Delete character to the left of cursor

## APPENDIX F - WILDCAT! SUPPORT PROGRAMS

[ctrl end], [ctrl Q - Y]	- Delete to end of line
[ctrl Y], [ctrl X]	- Delete entire line
[ctrl home]	- Delete from beginning of line
[ctrl T]	- Delete word to right of cursor
[ins]	- Toggle insert mode, large cursor
[ctrl R], [ctrl Q - L]	- Restore original contents of line

The Main Menu presents the choices EDIT, LIST, EXECUTE, LOAD, SAVE and an EXIT option. We will review the choices one at a time.

The first option normally used is **LOAD** a questionnaire, unless a new questionnaire is being created, in which case **EDIT** might be used initially. You may follow this documentation with no questionnaire loaded, or may select **LOAD** at this time to get the QUESTEST.BBS questionnaire in memory during this discussion.

### EDIT

If editing is selected without previously loading a questionnaire, a blank screen is presented with the cursor on question number one. The following sample screen shows an EDIT session with a questionnaire already loaded in memory.

MakeQues 2.00 Wildcat! Questionnaire Generator (C) 1988 Mustang Software

No	Question Text (Only first 60 characters shown)	Type	Br
1	Do you want to purchase a product with a CREDIT CARD?	MultC	<>
2	Do you have your credit card NAME, NUMBER & EXPIRATION DATE	MultC	<>
3	What product do you want to order?	MultC	<>
4	Do you want to order another product, in addition?	MultC	<>
5	What NAME do you want it shipped to? (must be cardholder)	Text	06
6	What STREET ADDRESS do you want it shipped to?	Text	07
7	What CITY, ST ZIP do you want it shipped to?	Text	08
8	What is the EXACT Name as it appears on the Card?	Text	09
9	What type of Credit Card are you using?	MultC	<>
10	Master Card Number?	MC	14
11	Visa Number?	Visa1	14
12	Visa Number?	Visa2	14
13	American Express Number?	AmExp	14
14	What is you Daytime VOICE Phone Number?	Phone	15

System Toggles : User Name Location Birthdate Phone Number Date & Time

F1:Insert Line F2:Delete Line F3:System Toggles F4:ClearAll F10:Exit

The lower section of the window indicates what information about the caller will be included at the beginning of the answer file, these are labeled System Toggles. The bottom line of the display shows the function key assignments available. F1: "Insert Line" & F2: "Delete Line" are used to add and remove lines from your questionnaire. Removing or adding lines will automatically adjust the branch field question numbers for all relocated questions (more on this later). F3: "System Toggles" allows you to edit which user items are included in the answer file. After pressing F3 use the arrow keys to highlight the choice to change and press the enter key to toggle the item on or off. F4 "ClearAll" is used to clear the entire questionnaire screen and should only be used if you want to erase all questions. F10 is the "Exit" key used to return to the main menu. While working in MAKEQUES a copy of the last edited questionnaire remains in memory, and selecting EDIT again will return you to the last questionnaire used.

When in edit mode enter the text you want displayed to the caller in the question text field. Note that only the first 60 characters are displayed, but the editor will scroll left and right as needed to accept up to 75 characters. You may move about the screen to edit information by using the editing keys defined previously.

The next field offers you the choice of which type of question will be asked. Pressing ENTER in the "type" field pops-up a window with the available choices:

**Text** - All alphanumeric input and punctuation is accepted as an answer. Use this type for general responses, or perhaps a substitute for Phone or Zip codes if you need alpha input for Canadian or non-US formats.

**Numer** - Numeric input only allows numbers. Use it for numeric input that is not specifically covered in the following formatted fields. Also good for non-US phone formats.

**MultC** - Multiple Choice input allows the caller to select his response from choices lettered A, B, C, etc.. If this field type is selected you are presented with a choice entry window which begins with choice "A". Enter as many choices as

necessary and press ENTER on a blank choice letter when done. This type question is also used for YES/NO questions.

After entering each choice text answer you will be asked to enter the "Branch To" question number. This allows variable execution depending on choice answers. Variable branches are indicated on screen with a ">" as the branch field. A sample of the multiple choice question "What type of Credit Card are you using?" is shown below:

MakeQues 2.00 Wildcat! Questionnaire Generator (C) 1988 Mustang Software

Multiple Choice Question		Branch
A. Master Card (5XXX-XXXX-XXXX-XXXX)		10
B. Visa (4XXX-XXXX-XXXX-XXXX)		11
C. Visa (4XXX-XXX-XXX-XXX)		12
D. American Express		13
E. None - CANCEL ORDER REQUEST		16
F.		00
G.		00
H.		00
I.		00
J.		00
K.		00
L.		00
M.		00

System Toggles : User Name Location Birthdate Phone Number Date & Time

Use F1-> to select, (RETURN) to edit, and (ESC) for Edit Menu.

**Date** - Accepts standard US formatted date input.

**Phone** - Accepts standard US Phone input with area code.

**Time** - Accepts standard time format HH:MM

**State** - Accepts 2 letters only, auto-capitalization.

**ZIP** - Accepts only numeric input, formatted for standard 9 digits (ZIP + 4).

**M/C** - Standard MasterCard format XXXX-XXXX-XXXX-XXXX followed by a request for expiration date.

**AmExp** - Standard American Express card format, followed by MM/YY for expiration date.

**SS#** - Accepts XXX-XX-XXXX format with numeric input only.

**Visa1** - VISA card format XXXX-XXXX-XXXX-XXXX followed by Expiration date prompt.

**Visa2** - VISA card format XXXX-XXX-XXX-XXX followed by expiration date. Note that you should offer a choice of charge card formats, see the example questionnaire QUESTEST.BBS for an example.

**Note** - This question type doesn't ask for any input from the caller. It simply displays the "question" text and branches to the indicated question. It may be used to ask very lengthy questions by placing one or more NOTES prior to the actual question, or just to insert a comment in the questionnaire.

**END** - This type indicates the end of the questionnaire. Make sure there are no questions after the END question.

Once the question TYPE has been selected the cursor is located in the Br (BRANCH) field. Each question has the ability to change the next question number, based either on the answer in a Multiple Choice or the entire question. You will notice that Multiple Choice questions have a editable branch field marked with a "»" since they have different branches for each choice. Pressing [ENTER] on a "»" branch will bring up the previously entered branches for each multiple choice in a window. There may be no blank question numbers between the first and last question. The last question should branch to question 99, and all remaining question lines should have question type END.

Now we will review the balance of the options on the main menu.

**LIST**

This option allows viewing a formatted output of the questionnaire on the screen, printer or a file. You are presented with a pop up window asking for a filename which will be used for the output. If printer output is desired enter the words **PRINTER**, or simply press **ENTER** for a screen display, with pauses.

**EXECUTE**

This option plays back your questionnaire. The screen is split, and the questionnaire in memory begins execution in the upper window and the answers are shown in the lower window. This allows checking both the branching and answer file responses generated as execution progresses.

**LOAD**

All **MAKEQUES** activity takes place in memory, and an existing questionnaire must first be loaded before it may be edited, executed or listed.

**SAVE**

After modifications have been made to a questionnaire in memory, a copy of the revised file must be saved to disk.

**EXIT**

This option prompts you to save a questionnaire in memory if you have not done so already. Note that you may leave the **EDIT** or **LIST** sections to execute without saving. A copy of the questionnaire is held and executed from memory.

Remember, the question files created with **MAKEQUES** are kept in the path for questionnaires, and the answers are placed in the startup directory. This arrangement allows common or different questions for each, but always segregates the answers by placing them in the startup directory for each node.

### **WAIT! & WAITFOR!**

These two programs are handy utilities to program pauses into batch file operations. WAIT! simply pauses for five seconds (by default), and can be instructed to pause for any number of seconds with a command line argument such as WAIT! 30 to pause for 30 seconds. The time counts down on screen and the batch file continues at expiration.

WAITFOR! accepts a command line argument for the time of day that the pause should be released. The time must be in 24 hour format such as 15:00 for 3 pm. WAITFOR! displays the time on screen as it awaits the designated time, then it simply stops running, passing control to the next batch file line.

These two utilities are useful in event scheduling to keep all nodes inactive for a period of time. WAIT! may also be used in a network setting to delay workstation login to the server long enough for the server to completely initialize and get ready for the workstations.

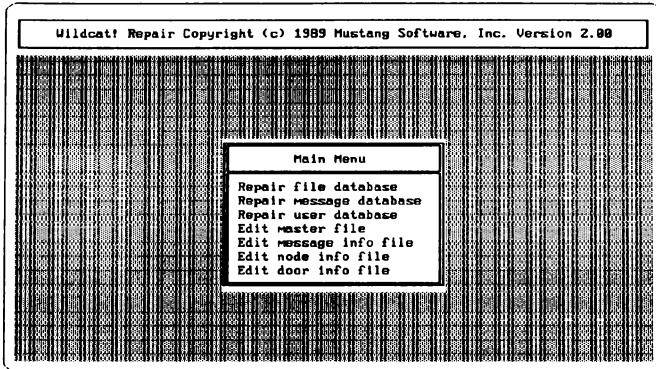
### **WCREPAIR**

*WILDCAT!* is distributed with WCREPAIR, a program designed to be used to fix damaged databases and configuration files. This utility should seldom need to be run except when an inconsistency develops in these files. The symptoms of such a problem are unequal index numbers for a database in the [S]tatistics on Databases in the Sysop Menu. Other problems may be seen as error log entries describing database errors in files, messages or users, or corrupted or incorrect master, node, or message configuration files.

WCREPAIR is menu driven and allows the sysop to select the area to be repaired. Choices are the file database, message database, user database, master file (MASTER.DAT), node information file (NODEINFO.DAT), door configuration file (DOOR.DAT), or message configuration file (MESSAGE.DAT).



This program should not be run on a regular basis as preventative maintenance. Sysops experiencing problems may be instructed to perform specific WCREPAIR functions by Mustang Software technical support staff if problems involving the configuration files are suspected.



The first three choices rebuild the database index file from the data file. The only file used for this reconstruction is the .DAT file for the database, which is immediately renamed with the extension .SAV for processing purposes. WCREPAIR then begins reading each record in the .SAV file, adds each good record to a new .DAT file, and creates a new .IX index file. If a corrupted record is found it is discarded, if possible. If too many bad records are found, WCREPAIR will abort the reconstruction process with an error. If this should occur, the original data file with the extension .SAV is left on the disk along with the reconstructed new .DAT file up to the point of the severe problem. In order to salvage the largest number of good data records you need to perform a second WCREPAIR pass on the new .DAT file which now contains only good information up to the point of corruption in the original file. However, this second pass may not be started with the .SAV file from the previous pass on the disk, or an error 10070 will be generated. You may either copy the .SAV file to a backup directory (remember, it is actually a copy of your original bad .DAT file) or you can delete it. Once the repair is begun again using the good .DAT file, proper index files will be generated.

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The fourth choice is to edit the MASTER file which tracks the total number of calls for the "system" (all nodes sharing a master file), and basic node status. The following screen is presented when this choice is selected:

Wildcat! Repair Copyright (c) 1989 Mustang Software, Inc. Version 2.00

Main Menu

Repair file database  
Repair message database  
Repair user database  
Edit master file

info file  
fo file  
fo file

Edit MASTER.DAT

Master File version : 2.00  
Active nodes :  
Total calls : 82059

↑ Keys to select      [ESC] to abort      [Control-Enter] to save

The first line simply indicates the version number in operation, and is for information only. The second line in the window is the selection point for the node status screen. Placing the cursor to the right of the words **Active nodes** : and pressing ENTER will bring up the following additional window:

Active Nodes

• 1	18	35	52	69	86	103	120	137	154	171	188	205	222	239
• 2	19	36	53	70	87	104	121	138	155	172	189	206	223	240
• 3	20	37	54	71	88	105	122	139	156	173	190	207	224	241
• 4	21	38	55	72	89	106	123	140	157	174	191	208	225	242
• 5	22	39	56	73	90	107	124	141	158	175	192	209	226	243
• 6	23	40	57	74	91	108	125	142	159	176	193	210	227	244
• 7	24	41	58	75	92	109	126	143	160	177	194	211	228	245
• 8	25	42	59	76	93	110	127	144	161	178	195	212	229	246
• 9	26	43	60	77	94	111	128	145	162	179	196	213	230	247
• 10	27	44	61	78	95	112	129	146	163	180	197	214	231	248
• 11	28	45	62	79	96	113	130	147	164	181	198	215	232	249
• 12	29	46	63	80	97	114	131	148	165	182	199	216	233	250
• 13	30	47	64	81	98	115	132	149	166	183	200	217	234	
• 14	31	48	65	82	99	116	133	150	167	184	201	218	235	
• 15	32	49	66	83	100	117	134	151	168	185	202	219	236	
• 16	33	50	67	84	101	118	135	152	169	186	203	220	237	
• 17	34	51	68	85	102	119	136	153	170	187	204	221	238	

Total calls : 82059

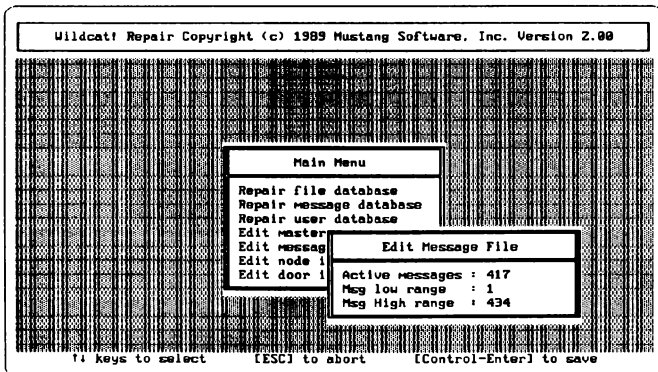
↑ Keys to select      [Return] to toggle      [ESC] to exit

Each active node number is shown with a dot to the left, indicating that it is currently "active" in some manner, either taking calls, or otherwise in service. This status dot may be changed by pressing ENTER when the cursor is located next to the node in question. After adjusting the node status as desired, press ESC to return to the previous screen, and then press CTRL-ENTER to save your changes.

Altering the node status in this manner is needed if a node experiences a hard crash, such as an unexpected power failure, and you are unable to perform some activity that checks for all nodes to be inactive.

The last option available in the Master file edit area is adjustment of the total number of calls received by the "system". Remember, a system consists of all nodes sharing the same master file path. This is often used to pre-load the number of calls received when first setting up *WILDCAT!* after using the shareware version.

The next WCREPAIR choice is editing the message info file. It contains the number of active messages in the database, along with the low and high numbers.



This information is automatically updated by *WILDCAT!* and the WCREPAIR process, and seldom requires alteration.

Editing the node info file is the next choice, and is probably the most complex WCREPAIR function. The following screen is displayed when this item is selected:

Edit NODEINFO.DAT			
Node ID	: 5	Lptr flag	: N
Node status	: Down	Page flag	: Y
Chat status	: Available	Bell flag	: Y
User status	: None	Kybd flag	: Y
Caller	: Tom Tcimpidis	Local next flag	: N
From	: Granada Hills, CA	Screen write	: Y
Baud rate	: 9600	Event next flag	: N
Previous time off	: 08/12/89 21:41	Bring down	: N
Time off	: 08/12/89 23:34	Kill caller	: N
Request node	: 0	Paging sysop	: N
Security level	: 20	Quote file index	: 23
Page displayed	: N	Number of calls	: 6
Previous caller	: Tom Tcimpidis from Granada Hills, CA		

Edit node info file

Edit door info file

[PgUp/PgDn] to select node    [Control-Enter] to save node    [ESC] to exit

The screen presents node number 1 with full detail about the current activity. The second line "Node Status" is a field not usually seen by the sysop, and may be toggled through the available choices with the spacebar after selecting the field. Up indicates that the node is active and ready for calls while Down signifies that it is not actually running *WILDCAT!* at this time. Other options are self-explanatory.

User status indicates what the caller is doing at the present time. If the word None appears it indicates that no one is currently connected. When no one is online, the caller name and other information reflects the last active caller.

The balance of the fields represent toggles and flags for the node in question. Pressing PgDn/PgUp selects next and previous nodes for display.

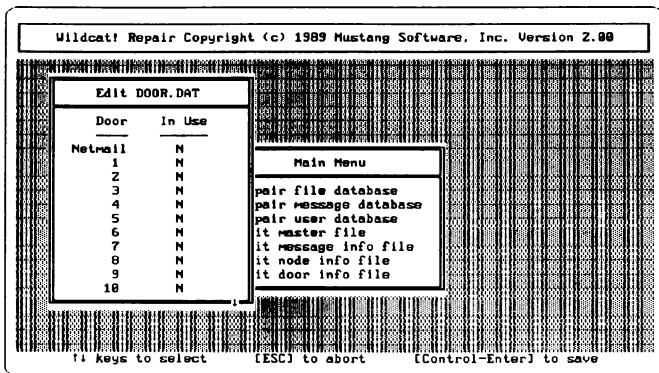
This NODEINFO.DAT file is constantly updated by *WILDCAT!* during operation, and is the heart of the tracking system. It is locked and unlocked as needed, and must be available when the system is in operation. If it becomes corrupted it may be deleted since a new one is created if it does not exist, but this should not be done unless all nodes are down.

The CATEYE program and several doors use this file to manipulate node activity. It is easy to imagine a door which is capable of changing the player's time remaining or other information through this file. WILDCAT! checks it regularly, which is how CATEYE is able to make changes to any node from any network location.

If changes in the node info file are made, press CTRL-ENTER to save them before leaving the screen.

The last WCREPAIR choice is to edit the door info file. The resulting pop-up window resembles the following:

As indicated in the documentation for doors in the Advanced



Features section, WILDCAT! will limit access to a door already in use if it is not a multi-user door. This is accomplished by use of the DOOR.DAT file. Each door has a flag indicating if it is "in use" or not which is updated every time a caller enters a door. If the flag indicates "in use" "Y", then other callers are prevented from entering the same door unless it is multi-user.

The "in use" flag may become set improperly if a door causes a hard crash and WILDCAT! cannot recover enough to re-set the flag to "N". In this case callers will constantly be told that

## **APPENDIX F - WILDCAT! SUPPORT PROGRAMS**

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a door is in use when it is not. Simply change the flag to "N" to correct the situation.

## **APPENDIX G - OTHER MUSTANG SOFTWARE PRODUCTS**

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### **ThePRO!Series**

This set of utilities offers extended database processing and graphs for sysops with advanced needs. Each of the PRO! utilities addresses a major WILDCAT! area. S-PRO! is the Statistical analyzer for tracking your system usage. U-PRO!, M-PRO!, and F-PRO! are the database manipulation utilities, used to create reports, lists, changes, and sweeping alterations to the data. Q-PRO! helps you get the most from the answers generated by questionnaires by performing percentage calculations, creating graph, and exporting to database files.

Each PRO! utility is only \$25, and the entire 5 program set is available in the PRO!-PAK for \$99. Call 1-800-999-9619 to place your order.

### **S-PRO!**

Your system runs day after day and accumulates a wealth of information, but without S-PRO! you are unable to use it to your advantage. S-PRO! quickly reads and analyzes the ACTIVITY.LOG file to get the information you need. It works by compiling key phrases, formatting the results in statistical form, and writing the results to a file of your choice. You can place the results in a bulletin, a downloadable text file, or even a file for screen display when the [S]tatistics command is requested. S-PRO! may be run interactively using the menu interface, or via a batch file during an event with a pre-set configuration.

S-PRO! Copyright (c) 1988, 89 Mustang Software, Inc. Ver. 3.00			
<ul style="list-style-type: none"><li>► Standard Statistics</li><li>► Bulletin Statistics</li><li>► Message Statistics</li><li>► Questionnaire Recap</li><li>► Door Statistics</li><li>► Download File Stats</li><li>► User Download Recap</li></ul>		<ul style="list-style-type: none"><li>► User Upload Recap</li><li>► Download Protocol Usage Graph</li><li>► Upload Protocol Usage</li><li>► Baud Rate Statistics</li><li>► Log Off Statistics</li><li>► Callers Per Day Graph</li><li>► Callers Per Hour Graph</li></ul>	
Affecting Message Areas :		ABCDEFGHIJKLMNOPQRSTUVWXYZ	
Affecting File Areas :		ABCDEFGHIJKLMNOPQRSTUVWXYZ	
Use History file :		Y	
Erase log :		N	
User Recap :		10	
Download Recap :		10	
Upload Recap :		10	
Number of nodes :		1	
Load configuration	Select graphs	Edit output	Repair history
Save configuration	Edit options	Process log	Quit
Registration # 86-001		Last modified: 08/10/89	

### Main Menu Screen

After running, S-PRO! can optionally delete the ACTIVITY.LOG and retain the calculated statistics and dates in a history file for future use. The history log feature allows for constant statistical updates in your display files without the need to allow the ACTIVITY.LOG to grow to an unmanageable size. Multiple configuration files can be used to operate different configurations during different event schedules.

**Why do I need an analyzer?** Running a host system is a lot of work. The maintenance and updating of users, responding to messages, and organizing files takes a lot of effort. After it's done, how do you know if you have met the needs of your users? Whether they are customers, a sales force, or a potpourri of callers from all over the world you need to know who is doing what, how often, and why. There is no easy way to get that information using a manual effort. Sure, the ACTIVITY.LOG tells you what is happening at any particular moment frozen in time, but it doesn't reflect the big picture. S-PRO! does!



S-PRO! Reporting Period : 06-15-89 to 07-29-89

Total Number Of Callers = 1265	System Efficiency Usage = 24%
300 Baud Callers = 26 2%	Hours of System Use = 255
1200 Baud Callers = 368 31%	Number of Local Log-ons : 5
2400 Baud Callers = 788 62%	Number of New Users added : 453
3600 Baud Callers = 63 5%	New User Questionnaire : 459
Types Of Log Offs	# Times Newsletter Read : 219
Normal = 1081 85%	Times Sysop Was Paged : 136
Dropped Carrier = 169 13%	Total Messages Left : 247
Time Exceed = 7 1%	Total Compressed Files Viewed: 351
Forced Off = 3 0%	Total Read Contents : 34
No Activity = 14 1%	
Total Questionnaire Answered : 54	
# of Illegal log-on attempts = 28	
Name in Badlist.BBS = 0 0%	
Incorrect Password = 28 100%	

### First Statistics Screen

**What can it do for me?** S-PRO! has so many uses it's hard to imagine operating a dial-in system without it. Suppose you use *WILDCAT!* as a connection base for your outside sales force. How do you determine which salesman has uploaded the most orders through the system? Have all 15 salesmen downloaded the latest list of sales leads? Is your newsletter article about the company's new sales incentive plan being reviewed? How about the new product technical support tips that you put in the bulletins, are they being read? Is the system *really* too busy for your employees to get connected, or are their complaints unfounded?

S-PRO! is a powerful business tool, but the hobbyist requires information as well. Which bulletins are of the most interest?

Is 300 baud access really needed by your callers? When is the least busy time to call? When should you perform your maintenance events? Are the files in the Game area more popular than in Accounting? **FIND OUT!**

### S-PRO! Features:

- *Creates both .BBS and .SCR display files.*
- *Interactive or batch operation from within an event.*

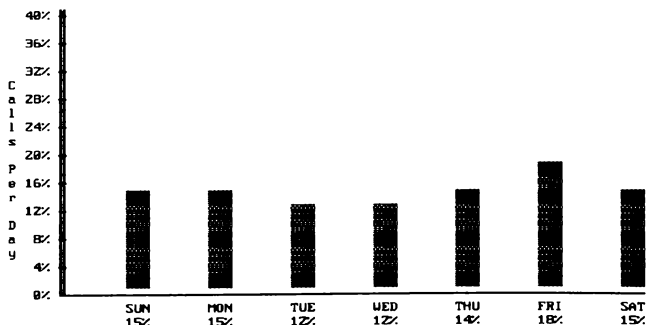
## Appendix G - Other Mustang Programs

- Results sent to the printer or a file of your choice.
- Include or exclude various statistics screens.

Total Number of Downloads = 727				Total Number of Uploads = 100			
Ascii	=	20	3%	Ascii	=	0	0%
Xmodem	=	203	28%	Xmodem	=	10	10%
Xmodem/CRC	=	35	5%	Xmodem/CRC	=	21	21%
Xmodem 1K	=	78	11%	Xmodem 1K	=	2	2%
Xmodem 1K/G	=	2	0%	Xmodem 1K/G	=	0	0%
Ymodem	=	225	31%	Ymodem	=	47	47%
Ymodem/G	=	18	2%	Ymodem/G	=	0	0%
External	=	146	20%	External	=	22	22%
Download From Areas : ABCDEFGHIJKLMNOPQRSTUVWXYZ							
Count Download Rejections : 15				K-Byte Download Rejections : 2			
Download Ratio Warnings Sent : 4				Number of System Crashes : 0			
Total Bulletins Read : 596				Total Doors Entered : 172			
Calls by Day	Sun	Mon	Tue	Wed	Thu	Fri	Sat
	185	185	156	146	176	226	191
	15%	15%	12%	12%	14%	18%	18%

### Second Statistics Screen

- Graphic display in bar charts for download and upload protocol, baud rate used, type of logoff, number of calls per day, and number of calls per hour.
- Graphs may be created using a choice of plain ASCII characters or a choice of 4 different line styles from the IBM extended character set.



Daily Use Graph

- *User recap includes information on the average upload and download count, hot key setting, screen setting, age, help level, average time per call, transfer method, total number of calls, and more.*

Peak Calling Periods By Hour											
00:A	01:A	02:A	03:A	04:A	05:A	06:A	07:A	08:A	09:A	10:A	11:A
3	23	17	41	23	38	42	38	48	73	69	62
0%	2%	1%	3%	2%	3%	3%	3%	4%	6%	5%	5%
12:N	01:P	02:P	03:P	04:P	05:P	06:P	07:P	08:P	09:P	10:P	11:P
67	78	73	61	58	73	54	67	67	89	59	59
5%	6%	6%	5%	5%	6%	4%	5%	5%	7%	5%	5%
Average User Information											
Uploads	:	2		Downloads	:	31					
Calls To The System	:	2		Age	:	35					
Minutes Per Call	:			Months Since 1st Call	:	4					
Transfer Method	:	All	58%	Screen Setting Mono	:	1818	56%				
Help Level Novice	:	1725	95%	Screen Setting Color	:	882	44%				
Help Level Regular	:	64	4%	Hot Key Setting No	:	641	35%				
Help Level Expert	:	23	1%	Hot Key Setting Yes	:	1169	65%				
S-PRO! Version 3.0 Mustang Software, Inc.						Registration # 86-881					

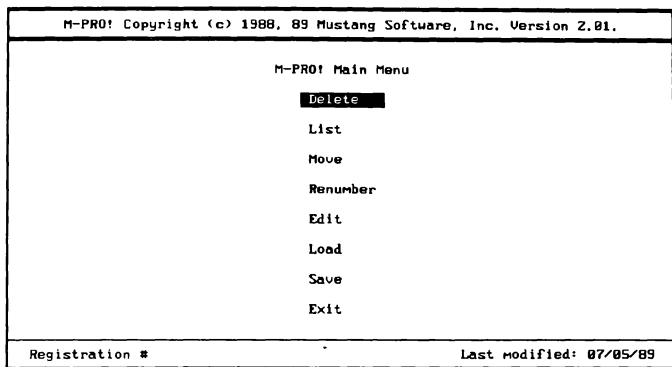
### Average User Info. and Peak Periods

- *Door recap includes number of times each door was entered, average time per use, and percentage of total door use.*
- *File recap displays the most popular files sent and received by transfer count, and includes the percentage or total transfers each represents.*
- *User upload and download recap indicates which callers are responsible for the most transfers.*
- *Questionnaire recap includes the number of times each was answered, with percentages.*
- *Bulletin recap includes the number of times each was answered, with percentages.*
- *Message recap includes the number of messages and average line count for each folder, as well as the number of messages deleted.*

## M-PRO!

---

M-PRO! is the answer to the drudgery of message review, deletion, printing, and movement from one folder to another. It adds new flexibility to message management through a variety of features.



### Main Menu Screen

All program options are menu selectable and share a common, logical criteria selection screen. Using the screen highlight bar you select which message areas are affected by the activity as well as which other message information should be considered. You can specify an action on a specific group of folders, on a text match in the From, To, or Subject fields, whether Public or Private, as well as on the range of message numbers or age of the message.

**Delete Option** - When selecting messages for deletion you have the option of deleting to folder "Y" or performing a "true delete" which removes the message completely. You may want to select messages for automatic deletion if they have been recieved and are private messages. Another regular

configuration might wipe out all messages over 30 days old and not received, or 90 days old regardless if they were received or not.

M-PRO! Delete Message(s)	
Affecting message folder(s)	: ABCYZ
Affecting message from	:
Affecting message to	:
Affecting message subject	:
Affecting message received	: BOTH
Affecting message private	: BOTH
Message number start of range	: 1
Message date start of range	: 01/01/00
Affecting message days old	: 0
Type of message delete	: TRUE DELETE
end of range : 65535 end of range : 12/31/99	

Use the cursor keys to select a category to change  
Press F2 to start the delete, or [ESC] to exit to the main menu

Press [ENTER] to edit the message folders to be affected

### **Criteria Selection - Delete Messages**

**List messages** - Using List, selected messages can be sent to screen, printer, or a file. This function can be used for viewing messages prior to deletion or simply as a fast method of reading a group of messages. Another use is creation of a text file of all messages in one or more folders, and placing them in a .ZIP file for download. The same criteria selection screen is used as in the delete option.

**Edit messages** - The editor is fully interactive, and allows control over the content of any message. Select the desired message from a scrollable list, and then add or delete lines, change spelling errors, or expand on a previous message using standard word processing features like auto-line-wrap, etc..

Compare the following List and Edit displays to see what can be done.

## Appendix G - Other Mustang Programs

Message 27  
From : RICK HEMING  
To : GREGORY WADE  
Subject: MONO  
Folder : Y. "Deleted Message Review"

DATE/TIME: 07/04/89 11:27  
-- RECEIVED --

Gregory,

Glad you got things working. For information and pricing on WILDCAT! 2.0, check out the [N]ewsletter file. Orders may be place with [O]nline Orderts, and shipping is done UPS 2nd day air.

Thanks for your interest in WILDCAT!

Note- This is un-edited text, compare with the Edit screen

MORE - Hit [RETURN] for Next Message or [ESC] to Quit

## List Message Display

From : RICK HEMING  
To : GREGORY WADE  
Subject : NONO

Line: 8      Column: 12      Z%    Insert: On    Indent: Off    Word wrap: On    SAVE

Gregory,

Glad you got things working. For information and pricing on WILDCAT! 2.0, check out the [N]ewsletter file. Orders may be place with [O]nline Orderts, and shipping is done UPS 2nd day air.

Orders may be placed by calling our toll-free **ORDERS-ONLY** HotLine at 1-800-999-9619.

Thanks for your interest in WILDCAT!

Note how text has been added!

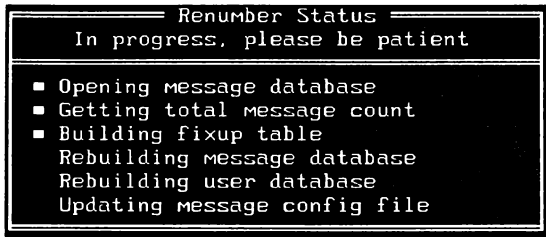
[F2] - Edit Subject      [F3] - Save Edited Message      [Esc] - Abort

### Edit Message Display

**Renumber** - Activate this option after completing a “true delete” and not only will M-PRO! renumber all active messages, but will update each user’s last message read counter in the user database.

## M-PRO! Features:

- *The Criteria Selection Screen is common to all functions including Delete, List, and Move messages.*
- *Preview messages flagged for deletion using the List function.*
- *Export all or selected messages to a text file for download or [R]eading online.*
- *Full screen editor with both standard arrow and control key commands and WordStar keystroke support.*
- *FAST renumbering with status display on screen.*



## Renumber Messages

- *Batch file operations may make use of multiple configurations which have been previously saved, allowing an event to perform more than one activity.*

## U-PRO!

One of the most neglected aspects of many BBS systems is maintenance of the User database. The reason is simple. Once a system becomes popular and accumulates more than 50 users, the prospect of reviewing each and every user entry becomes more than most sysops can bear. However unappealing this chore may appear, it does need to be done.

U-PRO! uses a Main menu screen similar to the other PRO! utilities, offering choices to Edit, List, change Security, Load, and Save configurations. A Criteria Selection Screen is also used to perform actions on sets of users, and it is very similar to the other screens.

U-PRO! Delete Users		
Transfer method	:	(Setting shows when editing)
More prompt	:	(Setting shows when editing)
Color menus	:	BOTH
Hot keys prompt	:	BOTH
Locked out	:	BOTH
Chat available	:	
Lines per page start of range	:	end of range : 99
DL/UL ratio x to 1 start of range	:	end of range : 65535
Uploads start of range	:	end of range : 65535
Downloads start of range	:	end of range : 65535
Times on start of range	:	end of range : 65535
Time left start of range	:	end of range : 65535
Highest read start range	:	end of range : 65535
Total upload K start of range	:	end of range : 2147483647
Total download K start of range	:	end of range : 2147483647
Daily downloads start of range	:	end of range : 2147483647
(11 for more)		
Use the cursor keys to select a category to change		
Press [F2] to delete users, or [ESC] to exit to the main menu		

Protocol

- All
- Xmodem
- Xmodem/CRC
- Ymodem
- Ymodem/G
- Xmodem 1K
- Ascii
- Batch

Press [ENTER] for a pop-up list of the current selections

### Criteria Selection Screen

Individual items within the user record, such as default transfer protocol, may be used as a basis for Listing, Deletion, or Security change. It's easy to maintain a registration BBS through regular deletion of names at the default security level, or to delete those who have not called within the last 90 days.



U-PRO! can make use of *WILDCAT's* Memo Date field to establish a "subscription" system, where callers pay for access for a specified time period. U-PRO! makes it easy to automatically lower the security level of those callers whose subscription has expired, and to post "30 day warnings" by changing security level to activate a SEC#.BBS file.

The Edit feature easily locates and allows modification of any user record. Changes are made in a full-screen editing mode.

Edit User			
User name	: Nick Avis	Hot keys	: Y
Calling from	: Diamond Bar, CA	Lines per page	: 23
Viewing folders	: ABC	More prompt	: Erase
Computer type	: IBM AT 286	Help level	: Novice
Last called	: 05/29/89 11:24	Locked out	: N
Password	: NOTTHIS	Color menus	: Y
Phone	: 714-555-0218	Chat allowed	: Y
Total K uploaded	: 47	Security level	: 10
Total K download	: 867	First called	: 05/05/89
Birthdate	: 10/08/54	Times on	: 4
New files search	: 05/05/89 20:14	Uploads	: 1
Memo date	: / /	Downloads	: 8
Protocol	: Ymodem/V	Time remaining	: 88
Daily downloads	: 1	Highest read	: 2343
Daily K download	: 126		

### **Edit Users Display**

#### **U-PRO! Features:**

- *Export to standard "quote-comma-quote" delimited ASCII file, including any fields desired.*
- *Character searches in fields (such as name) are case insensitive and locate matches anywhere within the selected field.*
- *Custom export formats may include any user information in any location on the screen or printed page.*
- *Common user interface with the other PRO! utilities.*
- *Batch file operation with multiple configuration files for event use.*
- *Full screen record editing.*

## **F-PRO!**

F-PRO! follows the style of U-PRO! and M-PRO! with regard to screen display, keystrokes, and Criteria Selection Screens. It also shares many of the functional features such as listing information to the screen, printer, or files.

F-PRO! Delete Files		
File area(s)	:	ABCDEFGHIJKLMNPOQRSTUVWXYZ
Filename	:	
Description line 1	:	
Description line 2	:	
Uploader	:	
Password assigned	:	
Password required	:	BOTH
File date start of range	:	01/01/88 end of range: 12/31/99
Last accessed start of range	:	01/01/88 end of range: 12/31/99
# of downloads start of range	:	0 end of range: 214748364
Size start of range	:	0 end of range: 214748364
Affect file on disk	:	Y

Use the cursor keys to select a category to change  
Press F2 to delete files, or [ESC] to exit to the main menu

Press [ENTER] to select the file areas to be included

### **Criteria Selection Screen - Delete Files**

The selection screen eases the chore of moving or deleting all files that have not been downloaded at least 5 times during the past 120 days, or perhaps listing the most popular downloads for your callers.

One of the most popular F-PRO! features is Reports. It can quickly provide a list of all files located on your disk areas which are NOT included in the WILDCAT! database, as well as the database entries that have no actual file present on disk. It can automatically add missing entries or delete entries with

missing files. It can even update the date and size entries for files which change on a regular basis.

F-PRO! Reports	
Affecting file folder(s) : ABCDEFGHIJKLMNOPQRSTUVWXYZ	
Report files without database entries	: N
Add entries	: N
Use file or current date	: FILE
Prompt for addition	: N
Enter descriptions	: N
Report database entries without files	: N
Delete entries	: N
Report mismatching date & size info	: N
Update date & size info	: N
Use file or current date	: FILE
Report database files duplicated on disk	: N
Use the F1 keys to select a category to change Press F2 to start the report, or [ESC] to exit to the main menu	

Press [ENTER] to select the file areas to be included

## F-PRO! Reports Screen

# Q-PRO!

This utility is used in conjunction with the questionnaire generation program MAKEQUES, and is designed to process ANSWERS rather than questions. It creates percentage statistics and graphs on all multiple choice questions, and can export answers to any database format commonly used.

Q-PRO! makes use of a History file similar to the one used by S-PRO!. It stores the questionnaire template along with all statistical information compiled on multiple choice questions. This allows the sysop to analyze and print the answers covering a period of time and save them in a .HST file for use later.

The answer file (.ANS) may then be erased and a new one started for the next evaluation period. When Q-PRO! is run later it can make use of the .HST file after determining the questionnaire itself has not changed. Graphs and statistical

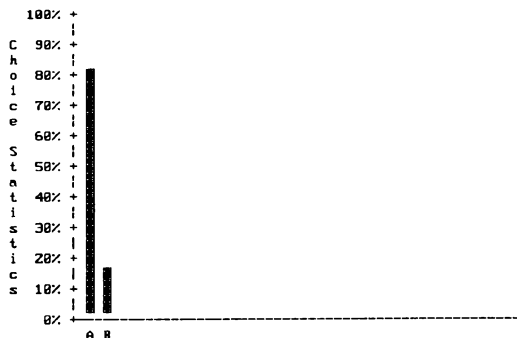
Q-PRO! Process Questionnaire
Create Statistics based on multiple choice questions : No Create Graphs based on multiple choice questions : No
Convert Questionnaire into database format file : No
Keep results in a history file : No
Delete .ANS file after processing : No Keep .LOG of processed questions : No
Use the F1 keys to select a category to change Press [Enter] to toggle the selected option Press [P] to process questionnaire, or [ESC] to exit to the main menu

### Q-PRO! Processing Screen

data will represent the total picture while your disk-based .ANS file remains at a manageable size.

The export feature of Q-PRO! allows the sysop to easily create mailing labels, form letters, mailing lists, or even text for database or word processing import.

# 1: Do you wish to be placed on our MAILING LIST?



Graph and percentage Output

## Auto-UpdatePlan

The Auto-Update Plan guarantees that you will stay up-to-date with all the *WILDCAT!* minor releases.

It is designed to provide **IMMEDIATE MINOR UPDATES** to *WILDCAT!* with no effort on your part. Never get behind!

As a subscriber to the Auto-Update Plan you will automatically receive every minor update to *WILDCAT!* and any PRO! Series Utilities that are up to date for your *WILDCAT!*. They are shipped even before becoming available for mail ordering through Mustang Software. Minor updates (like 2.10 to 2.20) are released as needed, and may total as many as 3 to 5 a year. Although major upgrades (like 2.x to 3.x) are **not** included in this program, you will remain entitled to the minor upgrades to any versions that you elect to licence during the one year period.

Since subscribers to the plan will be receiving minor updates throughout the year, voice technical support will never be refused while on the plan. Only \$50 per year.

## WILDCAT! STUFF!!

How big a fan are you? Do you operate the BBS at work and go home and forget about computers completely, or did you really *Catch the CAT?* If you want to tell the world then get our Hanes 100% cotton Beefy-T with the new *WILDCAT!* BBS logo on the back, just above our favorite battle cry: **"When you only have time to call the very best"** This handsome "T" is a full four color shirt; BBS in HUGE black letters shoulder-to-shoulder on the back with a bright yellow *WILDCAT!* planted in the middle. The background is our ocean blue-green, all on white cotton. The battle cry is printed below on the back. The front pocket area has a small

Mustang software logo in blue and black. Call for sizes and stock information; \$15.

For those looking to show their good taste in a more subtle manner there's the Mustang Software *WILDCAT!* BBS Golf Shirt. This is a heavy, 100% combed cotton 3-button white shirt from Outer Banks. Over the left breast a smaller version of the Mustang Software logo appears in blue and black just above the *WILDCAT!* BBS logo in black and yellow. It's classy enough to wear anywhere! Call for sizes and stock information; \$30.

Other *WILDCAT!* promotional item may become available from time-to-time. We're considering coffee mugs, calendars, pens, license plate frames, and posters. Inquire about additional items when ordering.

## **BRAINSTORM!**

Brainstorm! is a network productivity tool for sharing ideas in a multi-user environment. It consists of a topic oriented message and idea sharing system that presents feedback from all LAN users on a topic by topic basis. Originally designed as a project for a major telecommunication company's LAN, it incorporates full file and record locking capabilities. Any number of users are able to interact at the same time, reading or leaving messages in the desired area. Network users may start a topic which then is available to all others for comment and feedback. Reading messages within BRAINSTORM! is done by selecting a topic and following the thread of messages until the end is reached or another topic is selected.

Requires Novell ANet 2.0a or greater, Banyan Vines, 3-COM, or any other network fully supporting DOS 3.x SHARE. Brainstorm is available as a shareware product via the National BBS network. Registration starts at \$349 for a 25 user/server license.

## **PRTLABEL**

If you have a need for a great many labels, containing the same information, PRTLABEL is the solution. This new release includes full context sensitive help like MAKEWILD, and allows saving label formats to the "label directory" with ease. You can include special fonts anywhere in your text such as bold, underline, italics, or anything else your printer will support. Want a border around your message? Select from 4 border line types and simply draw it with the F-keys! It will print any number of lines on any number of labels in any format you wish, i.e. one up, 6 up, etc. Useful for pre-labeling envelopes or packages destined for daily mailings to the same location(s), cartons, blister packs, and other similar applications. Over 50 printer definition files are included for easy setup. Only \$25. 128K and a printer are required.





## GLOSSARY

### **ARQ**

**Automatic Repeat Request.** A general term for error control protocols featuring hardware detection and retransmission of defective data. This term is used primarily by US Robotics.

### **ASCII**

**American Standard Code for Information Exchange.** A 7-bit binary code representation of letters, numbers and special characters. It is universally supported in computer data transfer.

### **Asynchronous**

**Data transmission in which the actual data is preceeded by a start bit and followed by a stop bit since the time between transmitted characters varies.** Compare Synchronous.

### **Auto Answer**

**The modem feature which enables detection of a ring and answering without assistance from a program.**

### **Baud Rate**

**The number of discrete signal events per second occurring on a communications channel. It is ofter referred to as Bits per second (BPS) which is technically inaccurate but widely accepted.**

### **Bit**

**Binary Digit.** A single basic computer signal consisting of a value of 0 or 1, off or on.

### **Buffer**

**A memory area used for temporary storage during input/ output operations. An example is in WILDCAT!'s upload function where data being received is held in a 10K buffer until 8K is full, when it is written to disk.**

### **Byte**

A group of Bits acted upon as a group, which may have a readable ASCII value as a letter or number or some other coded meaning to the computer. It is commonly used to refer to 8-bit groups. 1 kilobyte = 1,024 bytes; 64K = 65,536 bytes or characters.

### **Carrier**

A continuous frequency capable of being either modulated or impressed with another information-carrying signal. Carriers are generated and maintained by modems via the transmission lines of the telephone companies.

### **CCITT**

A French acronym for the International Telephone and Telegraph Consultative Committee. This international organization defines the standards for telephone equipment such as the Bell 212A standard for 1200 baud and CCITT V22 for 2400 baud. The solution to a 9600 baud standard will probably be reached with CCITT.

### **CPS**

Characters Per Second. A transfer rate estimated from the bit rate and length of each character. If each character is 8 bit long and includes a start and stop bit for Asynchronous transmission, each character needs 10 bits to be sent. At 2400 baud it is transmitted at approximately 240 CPS.

### **CRC**

Cyclical Redundancy Check. An error-detection technique consisting of a cyclic algorithm performed on each "block" of data at the sending and receiving end of the transmission. As each block is received, the CRC value is checked against the CRC value sent along with the block. Many protocols including XMODEM-CRC and ARQ will request a re-send until the block is received correctly.

### **DTE**

Data Terminal Equipment. The device that is the originator or destination of the data sent by a modem. In most cases with WILDCAT! this is the host computer system.

**DTR**

**Data Terminal Ready.** A signal generated by most modems indicating a connection between the DTE (computer) and the modem. When DTR is “high” the computer is connected. WILDCAT! manipulates DTR (sometimes shown as TR) to disconnect a caller when the [G]oodbye command is issued by lowering the signal for a few seconds.

**Flow Control**

A mechanism that compensates for differences in the flow of data to and output from a modem or computer. Either hardware or Software can be used for this control to prevent data loss. Hardware flow control using the modem makes use of a buffer to store data to be sent and data received. Flow control is necessary if the Communications port is locked at a higher rate than the connection rate.

**Full Duplex**

Signal flow in both directions at the same time. It is sometimes used to refer to the suppression of online LOCAL ECHO and allowing the remote system to provide a REMOTE ECHO.

**Half Duplex**

Signal flow in both directions, but only one way at a time. It is sometimes used to refer to activation of LOCAL ECHO which causes a copy of sent data to be displayed on the sending display.

**MNP**

**Microcom Networking Protocol.** A hardware error protection protocol developed by Microcom, now in the public domain. It makes use of CRC and retransmission of defective blocks by checking done within the modem.

**NRAM**

**Non-volatile Random Access memory.** A user-programmable memory chip whose data is retained when power to the chip is turned off. NRAM is used in many modems to store default settings.

### **ON/OFF Hook**

A descriptive term referring to manually lifting a telephone receiver (taking it OFF Hook) and replacing it (going ON Hook). OFF Hook produces a busy signal on the phone line.

### **Parity**

An error detection method used in both communications and computer memory checking to determine character validity. Communications now makes use of more efficient "block" checking although parity must still be matched in a communication session for transfer to take place correctly. Host communication in the BBS environment omits parity checking (no parity).

### **Protocol**

A system of rules and procedures governing communications between two devices. File transfer protocols in WILDCAT! refer to a set of rules governing how error checking will be performed on blocks of data.

### **Remote Echo**

A copy of the data being received is returned to the sending system for display on the screen. See Full/ Half duplex.

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